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ABSTRACT

Two distinct types of planning-programing-budgeting systems (PPBS)--manual and semiautomated--have been developed in the ESEA Title III, Intermediate Unit Planning Study (see EA 002 750). The PPB systems are for use by intermediate units and by school districts in Pennsylvania. The first type is detailed in this document and is referred to as the manual version. In this version, the procedure can be completely calculated manually with the use of a desk calculator. The second type is referred to as a semiautomated version (see EA 002 752 and EA 002 754). The first manual version has been revised and is contained in this document as EPPBS-Version I, Model 2. No further development of the manual version is contemplated in the study. The intermediate units will use this procedures manual, which includes a suggested work schedule and samples of forms, worksheets, and reports. The Version I, Model 2 Procedures Manual for School Districts is in EA 002 753. (DE)

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EDUCATION-PLANNING-PROGRAMMING-BUDGETING SYSTEM
PROCEDURES MANUAL FOR INTERMEDIATE UNITS VERSION I, MODEL 2

VOLUME I

March, 1969

An Intermediate Unit Planning Study
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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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FOREWORD

Two distinct types of Planning-Programming-Budgeting System (PPBS) have been developed in the Intermediate Unit Planning Study for use by intermediate units and school districts in the Commonwealth of Pennsylvania. The first type is detailed in this document and is referred to as the manual version, i.e., the Planning-Programming-Budgeting Procedure contained herein can be completely calculated manually with the use of a calculator. The second type is referred to as a semi-automated version, i.e., a version dependent for its calculation on the use of electronic data processing equipment.

The manual version passed through one revision following its introduction into the field last fall. The first manual version (PPBS - Version I, Model 1) was tested with Bucks and McKean County Offices and Cameron County, Central Bucks, Morrisville, Pennsbury, Port Allegany, and Smethport Area School Districts from November 1968 through February 1969. The revision of this version is contained in this document and is referred to as PPBS - Version I, Model 2. No further development of the manual version is contemplated in the study.

The semi-automated versions are of two types - batch-processing and on-line. The batch-processed version is known as PPBS - Version II, Model 1. The on-line version is known as PPBS - Version III, Model 1. The school district's batch-processed version was tested from December 1968 through February 1969. The intermediate unit's batch-processed version will be completed and tested by the middle of April 1969. The documentation for the batch-processed versions for school districts and intermediate units should be available in May 1969. Design of the on-line-version will continue into December 1969. Initial testing of this version should be completed by March 1970. A technical report on the development and testing of the on-line version will be completed by the end of May 1970.

An improved PPBS - Version II Model 1 will be developed in August and early September 1969 and will be known as PPBS - Version II, Model 2. This version will incorporate the best features of Version I, Model 2 and Version II, Model 1 and will include several analytical decision aids. This final batch process version will be tested by the pilot county offices and school districts during the 1969-70 school year.

The manual version is an excellent training device and, of course, can be used by intermediate units and school districts in Pennsylvania that do not have access to or do not wish to use electronic data processing equipment. However, once a staff has received training in the use of the Planning-Programming-Budgeting System we strongly recommend that the batch process-version be used for all calculations. This system will save upwards of two man weeks of computational effort.

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SECTION I

BACKGROUND INFORMATION ON PLANNING-PROGRAMMING-BUDGETING

What is the Planning-Programming-Budgeting Process?

Planning-Programming-Budgeting (PPB) is the general term applied to a set of interrelated management planning activities. Education-Planning-Programming-Budgeting (EPPB) is the more specific term used when the area or management is education, and the management unit is a school district or intermediate unit.

The essence of this relationship is the systematic development and presentation of information as to the full implications, costs and benefits of major alternative courses of action relevant to major resource allocation decisions. Specifying this relationship permits any organization to better allocate resources among alternative methods of attaining its objectives, recognizing limiting conditions.

If we examine these events and their relationships we find that they can be applied to both private and public organizations. However, as we probe deeper into each event and its relationship to other events we find that a Planning-

Programming-Budgeting System System (PPBS) changes subtly in character from organization to organization. That is, some PPB events are universal and connected in largely the same sequences, independent of the organization in which they are applied. Specific items, on the other hand, are processed through a PPB System (PPBS) by specific techniques peculiar to the nature of the organization in which the PPBS is being implemented.

For example, consider the use of a PPBS for a municipal government which has no schools under its jurisdiction. The event of forecasting, common to any PPB system would still occur; however, the items forecast by the city would more than likely not include school enrollment by grade. Instead items forecast would be more relevant to the city's operation. In addition, a technique used for forecasting school enrollments might not be satisfactory for forecasting the items in which the city is interested. This example helps to stress the point that a particular PPB System must be consciously designed and adjusted to satisfy specific operating requirements of the organization for which it is being developed. There is no universal set of specific techniques that can be used for all organizations.

Therefore, except at a general level, PPB means different things to different organizations. The PPBS that is designed for one organization will not necessarily, indeed, probably won't work for another. This does not mean, of course, that the efforts on behalf of other organizations have not been examined by the study staff; they have, and they will continue to be examined for useful ideas. The PPBS under design in this Study is one that is directed toward public education organizations and consists of two large sub-systems, one for the local school district and one for the intermediate unit or county superintendent of schools office. Thus the designation EPPBS (Education-Planning-Programming-Budgeting System).

When PPB is discussed at a general level people tend to form the impression that PPB represents nothing very different from their current way of doing things. It is often pictured as being very vague in outline with little new in substance or method to recommend it over current practice. A parallel between PPB and current practice can be found in the difference often noted between science and common sense. Science differs from common sense in at least four ways:

1. Science systematically builds theoretical structures. Common sense often accepts convenient explanations of phenomena.
2. Science systematically and empirically tests its theories. Common sense often is employed to test hypotheses but does so in a loose and selective fashion.
3. Science tries systematically to rule out "causes" other than those hypothesized to be the cause. Common sense seldom bothers to control its explanations in a systematic manner.

4. Science consciously and systematically pursues relationships. Common sense often seizes on the accidental occurrence of two events and links them as cause and effect.

Although PPB does not provide a management "science", it is a "systematic" framework within which management can operate. It represents a conscious effort to increase rationality in decision making. Although it faces the same limits as those practices which are based on common sense, that is, uncertainty of future conditions, inadequate measuring instruments, and a variety of alternative explanations for events, PPB does aid in exposing and reducing these limits. PPB can contribute to the development of a more adequate means of measuring progress and to discovery of casual relationships.

What Terms Are Frequently Used in the Education-Planning-Programming-Budgeting System?

To provide a common orientation in understanding the EPPB System you need a working knowledge of a few frequently used terms. Other terms less frequently used are defined in the Glossary. Terms will be added to the Glossary from time to time.

Output

This term is used to describe the measurable results of the work accomplished in a program or project. There may be more than one output which results from a single program or project. An elementary education corrective reading project has an output which can be described in terms of number of children successfully completing the corrective reading project. A pupil transportation program has an output which may be described as the number of pupils transported to and from school. An output, in the strictest interpretation of the term, simply identifies a quantity of end results from a program or project.

Performance Measure

A performance measure is used to relate outputs to other criteria of quality, efficiency, or effectiveness. An elementary program or project may have a variety of performance measures. These may include cost per pupil, where output is related to money; average reading achievement, where output is related to a quality standard; or, percentage of pupils of secondary school age completing secondary school, where output is related to a demand to provide a measure of effectiveness. Similarly, in a student transportation program the cost per pupil of transportation is a performance measure.

Indicator

An indicator, especially as it is used in this educational PPBS, is a measure of quantifiable factors which allows an experienced administrator to estimate the overall results of a number of programs and projects. The word indicator is a much less precise term than either output or performance measure. In some cases, a particular output or a particular performance measure may in fact be used as an indicator of overall organization or system functioning. Thus the percentage of elementary school children attaining a particular level on a particular achievement test may be a performance measure for a particular program and may also be used by the chief school administrator as an indicator of the results of the interactions of many different programs and projects.

Objective

The specification and definition of objectives will follow a hierarchial organization from (1) school-district-wide or primary objectives, through (2) program-project or secondary objectives, to (3) activity or tertiary objectives. Primary objectives are influenced by the interaction of many programs and projects. Secondary objectives are influenced by the interactions of many activities within a given program or project. Tertiary objectives are influenced by the interactions of several tasks within a given activity.

An objective is not a measure of present or past performance or output, nor is it the kind of measure which is used as an indicator. An objective is oriented to the future. An objective specifies the accomplishment or the prevention of some specific situation in the future. An objective may refer to changes to be obtained in performance measures, or changes to be obtained in outputs, or changes to be obtained in indicators at some specific time in the future. In addition, an objective may deal with changes to be brought about which are not represented by indicators, outputs, or performance measures. Thus, an objective for an elementary program may be to have all children attain a specified minimum score on a particular achievement test by the end of the current school year. Another objective for the same elementary program might be to reduce the per pupil cost from $500 per pupil to $450 per pupil. An objective therefore specifies measurable results to be achieved in a specified time period. An objective does not describe how the results are to be achieved. The way in which a specific result is to be achieved is a program or project or, perhaps, one activity within a specific program or project.

Constraint

One can recognize three kinds of constraints on the operation of an educational unit: (1) decisions about programs made by the decision-making group; (2) those imposed by the environment, viz., the community, state, and national, as input to the system, such as, the number of students who must be enrolled or the revenues available; and (3) those imposed by the environment but not resulting as inputs, such as, legal requirements, and non-program regulations imposed by the top decision-making group.

Decision-Making Group

This is the group of individuals responsible for determining policies, plans, programs, and budgets for the educational unit.

Program and Subprogram

An identified set of continuing activities (1) which are sufficiently routine and accepted to be carried on unless there is a specific decision by the board or superintendent to discontinue them, (2) which some specific segment of the present school organization has responsibility for undertaking, (3) which have a specific relationship to more than one objective, and (4) which for this reason are divisible into sub-programs.

Project

An identified set of new activities (1) which are non-routine, less familiar, and not continuing, (2) which have a specific beginning and closing date, (3) which are outside the formal organizational structure, (4) which generally relate to a single explicit objective, (5) which normally relate to change and innovation, (6) for which performance involves high risk to the organization, or (7) which are not normally divisible into sub-projects. (For a more detailed explanation of the distinction between programs and projects see Appendix A, particularly the paragraphs on "Program Approach", "Project Approach", and "A Mixed Approach.")

Activity

An identified set of tasks which: (1) are either continuous (program) or non-continuous (project); (2) are incorporated along with other activities into a specific program or project; and (3) have specific relationships to one or more explicit tertiary objectives.

Program and Project Set

In the EPPB any change in a single program or a group of programs is considered to be a project except for simple changes in the desired staff/student ratios. Program changes, with the exception of ratios, are considered to be projects so as to insure accurate reporting of costs and careful estimates of anticipated effects of the change. Projects can be either operational or capital improvements, as will be explained later.

Thus, a program and project set is a combination of programs (perhaps wich changed staff/student ratios) and projects. A set may increase or decrease existing programs (from the levels forecasted in the Final Base Case) and introduce new operational or capital improvement projects, beyond those in the Base Case, at any point in the five year planning period. (See Appendix A.)

Base Cases

Three separate base cases are developed in the first half of the EPPBS Procedure - Base Case, Adjusted Base Case and Final Base Case. The basic underlying assumption of all the base cases is that the objectives and constraints that were taken into consideration during the development and deliberation process leading up to the final approval of the present five-year plan and current budget will not change over the next five years. An example of the implication of this assumption is that the current year's pupil-teacher ratios will remain the same for the next five years, unless a specific project is adopted that is designed to alter this ratio.

The purpose of the calculations for the Base Case are to show only the effects of inflation upon expenditures over the five-year planning horizon. Increases or decreases in pupil enrollment and capital improvement costs are ignored in these projections.

Calculations for the Adjusted Base Case show the combined effects of inflation and changes in pupil enrollment on the expenditure pattern over the next five years. The calculations for the Adjusted Base Case lead to the calculations of the Final Base Case. The Final Base Case shows the effects of inflation, changes in pupil enrollment, and increased costs resulting from capital improvements.

If a five-year plan was developed last year, the plan would be updated in the first half of the PPBS Procedure and the results of this updating would be called the Final Base Case. Therefore, the calculations related to the Base Case and Adjusted Base Case would be eliminated. However, if a five-year plan was not developed last year, then it will be necessary to perform the calculations for each base case.

What Are the Major Characteristics of a Planning-Programming-Budgeting System?

A PPBS provides a framework for relating the activities of management in a systematic way that will help to clarify objectives and make improved allocation decisions. The PPBS approach has several distinctive characteristics.

Objectives and Programs

PPBS focuses on identifying the objectives of the organization and determining ways of measuring or estimating progress toward these objectives. All programs, projects and activities of the organization, regardless of their placement in the organization, are then related to these objectives. A set of activities which contributes toward the achievement of an objective or set of objectives is designated a project or program. Objectives and programs may be thought of as hierarchies proceeding from the most general to the most specific. The degree to which these hierarchies are defined depends mainly on the size of the organization. Large organizations require much more detailed specification at the objectives and program level than small organizations.

Future Implications

The PPBS approach explicitly considers the implications of future conditions. This requires forecasts of future demands on the organization, future resources available, and the capability of current programs and projects to meet the objectives of the organization under the conditions anticipated in the future. Plans are revised or new plans originated as necessary to overcome foreseeable obstacles and to achieve changing objectives.

Multi-Year Plans and Financial Plans

Programming is an essential part of the PPBS approach. Long range plans are broken down into specific groups of activities (programs or projects) to be accomplished in each of the next five years. Both capital and operating costs are shown in each year for each program. The five-year plan includes the financial plans for providing revenues and other resources needed to accomplish the activities included in the five-year plan. The first year of the five-year plan and financial plan becomes the basis for the detailed budget which implements the first year of the five-year plan.

Analysis of Project Alternatives

The PPBS approach provides the framework for analyzing the relative merits of alternative projects for achieving specified objectives. First setting out measurable objectives, the manager and his staff are then able to assess the degree to which different alternative projects would meet these objectives. By estimating the total costs of each course of action in comparison with the results that would be achieved by each course of action, the manager is aided in choosing the alternative to implement, with increased understanding of the effects of his action not only in the present but over the five years of the multi-year plan.

Annual Revision

The process of planning, programming, and budgeting is repeated annually in the PPBS so that planned action is regularly revised in view of actual experience in carrying out the first year of the multi-year plan. Thus the PPBS approach provides a systematic way of helping the organization keep its plans and actions up to date.

It should be noted that the PPBS approach is not a "total management system". PPBS does not deal with problems of budget implementation, efficiency of operating units, manpower selection, cost control, monitoring and control of operations, cost accounting, or performance measurement and reporting. Functions such as these are complimentary to the PPBS approach but are not directly a part of it.

What are the Major Elements of an Education-Planning-Programming-Budgeting System for the School District?

Now that we have identified the major characteristics of a PPB System, we can now examine the specific elements that are involved in the creation of an EPPBS for school districts.

Input Forecasts

Given current laws and policies under which school districts are operating, forecasts of expected student enrollment, by grade, and of expected revenue by major source affect each school district's EPPB cycle. These forecasts of pupil and revenue inputs must be made for each year of the five-year planning horizon. While all school districts make some formal or informal projections at present, the interaction of the local school district's PPBS with the intermediate unit's PPBS makes it important to have regular, comparable forecasts covering the same factors for the same five-year period for each school district within the area served by the intermediate unit.

Standard forecasting methods for school district enrollment and revenues are provided as a part of this manual. The methods include statistical procedures and judgmental estimates by school administrators in arriving at reasonable forecasts. An example of judgments would be estimates of special revenues contingent on state or federal funding of a proposed project.

Program Structure

The grouping of activities into broad program categories is of considerable importance in systematic planning and programming. The general program structure developed as part of this manual takes into account common activities of school districts and intermediate units as well as allowing for differing activities among school districts and intermediate units. The EPPBS program structure does not attempt to duplicate the organizational structure or accounting and budgeting classifications, but is especially related to the purposes of the school district and intermediate units and the activities which are conducted in achieving these purposes. See Appendix A for detailed information. The activities are grouped according to the following plan: Program Area, Program, Subprogram, and Activity. Activities are not shown in Appendix A; however, the classification scheme permits sub-dividing to this level if desired.

In addition to the twenty-three continuous programs shown in Appendix A, an indeterminate number of non-continuous projects may form a five-year plan. In the development of a five-year plan the goal is to find that collection of economically feasible projects which when added to the twenty-three programs will have the best chance of achieving a predetermined set of objectives within specified constraints. Because projects are the product of the school district staff's desire to respond to a particular problem, no effort has been made to develop a detailed project classification system. However, projects are grouped for ease of handling into two general categories - Operations and Capital Improvement.

Indicators

One of the most difficult tasks in designing a EPPB System is the task of providing measures of effectiveness for specific objectives. Theoretically, the ideal would be to find a single measure of the output of the system and to relate all activities to that final measure of effectiveness. In the case of education and other complex public services, there is reason to question the validity of the theoretical ideal, and as a practical matter, there is no known way to produce a single, valid measure of educational output. Under these circumstances, a better approach is to identify indicators of major variables subject to partial if not complete control of the intermediate unit which, when interpreted by experienced administrators and policy officials, indicate possible needed action. Examples of such indicators now in use by school administrators include variations of pupil-teacher ratio and grade achievement scores.

The indicators shown in this document have been selected to show how indicators serve as general reference points for estimating the present and future implications of present programs and projects or planned projects. Indicators are also of value in terms of setting objectives, by allowing intermediate unit staffs and boards to designate desirable levels which they wish to achieve for each indicator. It is highly likely that school district staffs and boards will also set more specific objectives for each important program, project or activity to facilitate their evaluation of alternative courses of action.

Operational Forecasts

Forecasting the financial and operational (staffing, facilities, equipment, etc.) implications of continuing programs and projects and planned projects is an essential part of the EPPBS approach. Operational forecasts provide a means of testing the practicality of tentative decisions, and allow estimates to be made of the effect on indicators of plans, in the light of input forecasts of probable enrollments and revenues. As in the case of input forecasting methods, operational forecasting methods being developed as part of this manual include both judgmental estimates by school administrators and statistical procedures.

Multi-Year Plans, Programs and Projects

Five-year plans, which set out policy guidelines in the form of objectives and desired indicator levels and the methods of reaching these levels within recognized constraints, provide the overall picture of where the school district expects to be in the future and how it intends to get there. These plans include all major programs and projects, and take into account input forecasts, operational forecasts and estimates of indicator levels. Because these plans represent major policy decisions, they do not include details of operations or finances, but focus on major results to be achieved and on major program and project changes, including changes in capital facilities as well as operations.

Multi-year programs and projects outline the means of implementing the five-year plan. Multi-year programs and projects show the broad allocation of resources among major programs and projects in each of the five years or the plan, and identify results to be achieved in each year. Action to be taken in each year is also outlined for each major program and project, so that the five-year plan shows a financially and operationally feasible series of steps needed to carry out the plans. Relationships between capital facilities and operations, such as, staffing and maintenance requirements for new facilities, are made clear in the five-year plan, as are changes in fixed costs, such as, debt service. The first year of the five-year plan becomes the basis for preparation of the annual budget, which can be prepared with confidence that budgeted activities will contribute to accomplishment of policy guidelines, and will be compatible with the steps to be taken in following years.

Budgets

The annual budget accomplishes implementation of the first year of the five-year plan. The approved budget provides specific authority to take action and expend resources, while the five-year plan represents policy guidelines and does not give specific authorization. The format of the annual budget is not of direct importance to the EPPB System. The annual budget may be a line item budget or a program budget, so long as there is a way of relating the first year of the five-year plan to the particular type of budget in use. Therefore, it is not intended to develop a special budget format as part of the study.

What is the Education-Planning-Programming-Budgeting Procedure?

Each employee contributes something to the EPPB Procedure during the course of his year round activities. However, the concentrated effort of planning, programming and budgeting extends from November through April. These six months are packed with activity and require conscientious effort to maintain a satisfactory schedule of progress. The six intervening months contribute to the EPPB Procedure as a period for gathering data that can be processed by the EPPB System. The cycle of events for the annual EPPB Procedure is shown in Figure 1. A more detailed explanation can be found in the report of the PPBS design.(1)

The procedures to the left of the diagonal line are the planning, programming and budgeting steps. Those in the lower right are the general processes carried out on a day-to-day basis to control and guide the on-going operations. It is assumed that these processes will produce data which is recorded in a data base. This data base consists of a collection of files, each of which contains information about some aspect of the intermediate unit, viz., personnel, facilities, pupils, programs, etc.

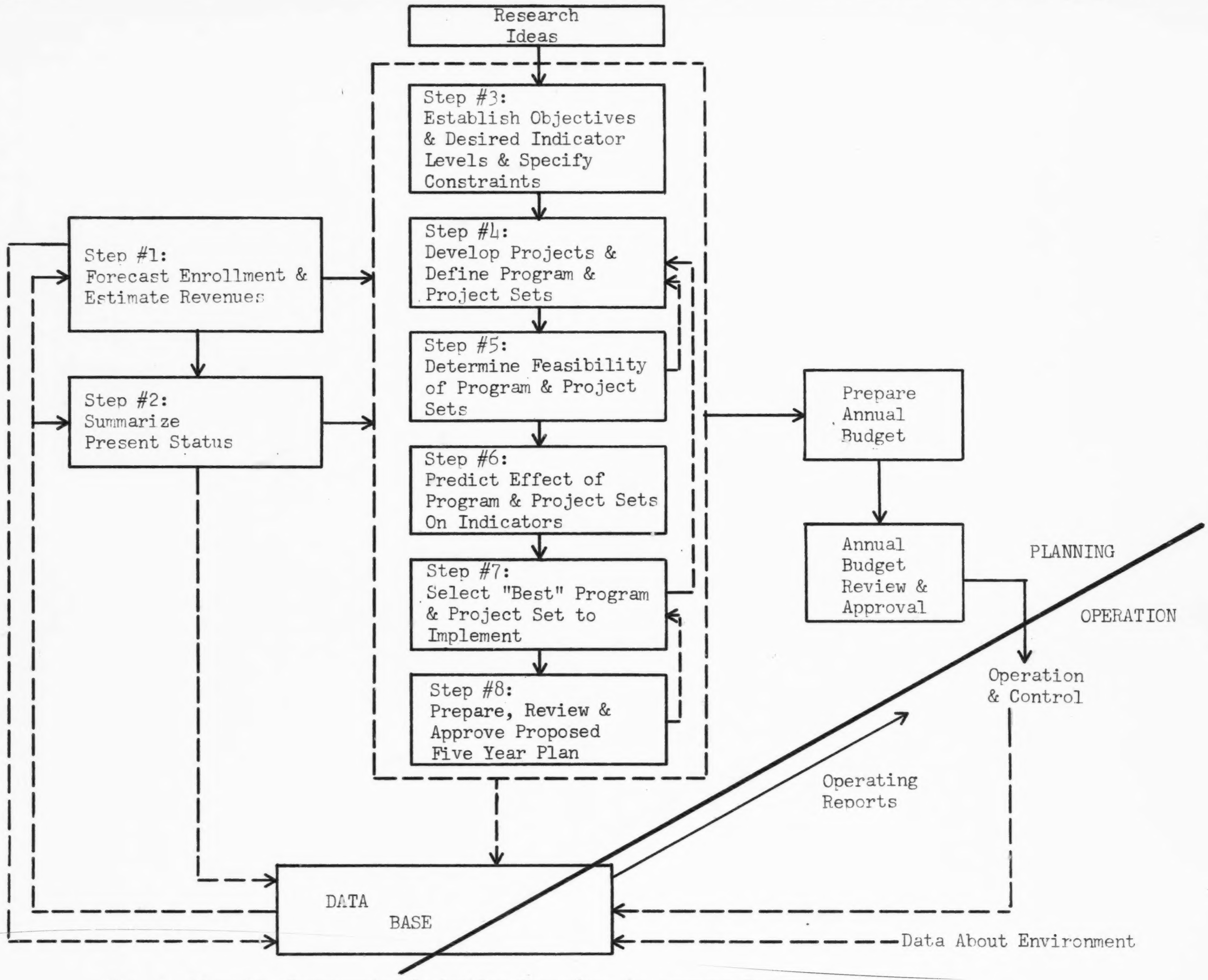

Research Ideas
Step #3: Establish Objectives & Desired Indicator Levels & Specify Constraints
Step #1: Forecast Enrollment & Estimate Revenues
Step #4: Develop Projects & Define Program & Project Sets
Step #5: Determine Feasibility of Program & Project Sets
Step #2: Summarize Present Status
Prepare Annual Budget
Step #6: Predict Effect of Program & Project Sets On Indicators
Annual Budget Review & Approval
PLANNING
Step #7: Select "Best" Program & Project Set to Implement
OPERATION
Operation & Control
Step #8: Prepare, Review & Approve Proposed Five Year Plan
Operating Reports
DATA BASE
Data About Environment

Fig. 1. Planning Programming Budgeting Procedure in summary form.

Step #1

The EPPB Procedure starts with data gathering and computational efforts designed to describe the environment in which the school district will operate over the next five years. Several aspects of the environment will be characterized, i.e., potential revenues and future enrollments by grade. These forecasts provide estimates of factors important to the future activities of the intermediate unit and, therefore, are indispensable to this decisioning process. These forecasts are entered into the data base for use in the subsequent planning effort.

Step #2

The second step extracts data from the data base and summarizes it in a form suitable for the subsequent planning steps. One output of this procedure will be estimates of the actual level of indicators and other descriptions of the present status of the school district projected over a five-year planning horizon. Another output will be the identification of problems, both those which have arisen during the school year and those which are indicated by large gaps between desired and actual levels of indicators. The data resulting from this step are recorded in the data base.

The main part of the planning and programming effort is a series of six additional steps which are designed to produce a specific five-year plan. This plan consists of the five-year objectives and desired indicator levels, accompanied by the set of programs and projects which are to be undertaken during the five-year period. The data resulting from these six steps (described below as Steps #3 to #8) are recorded in the data base.

Step #3

The third step, carried out by the highest decision-making group, is to establish policy guidelines consisting of specific objectives, desired indicator levels, and specified constraints for the school district over the five-year planning period.

Step #4

The fourth step is concerned with defining potential projects. Consideration of these projects is based on the policy guidelines, environmental forecasts, problems and the status of the school district. Projects are proposed which should improve the operation of the school district and eliminate or reduce the problem areas. These projects are then grouped with the twenty-three continuing programs to form program and project sets. Thus, several different sets of programs and projects can be identified and critically examined.

Step #5

The fifth step determines the feasibility of these various program and project sets. Feasibility is determined in terms of financial resources and manpower resources. A program and project set is appraised by use of appropriate cost factors, including various estimates of inflation, and the enrollment and revenue forecasts. A feasible program and project set is a set that can be financed within revenue and manpower constraints. One result of this step might be the initiation of projects to increase revenues, recruit personnel, or reduce costs in certain programs. Steps #4 and #5 may have to be repeated several times before several feasible program and project sets are selected.

Step #6

The sixth step involves an effort to predict how the feasible program and project sets will perform over the five-year period. In particular, estimates are made of indicator levels for each of the five years for each program and project set.

Step #7

The seventh step is concerned with the output of the prediction task which permits a comparison between the objectives and desired indicator levels established earlier and the suitability of a particular set of programs and projects. The superintendent can then judge the alternative program and project sets and select the one that most nearly satisfies the policy guidelines. Since none of the proposed program and project sets may be feasible, or none may produce the desired results, Steps

#4 through #7 may have to be repeated several times before an adequate set of programs and projects is selected.

Step #8

The eighth step involves the preparation, review and acceptance of the five-year plan and program by the highest decision-making group. This event may require recycling back through Step #7 and possibly back to Step #4 before the highest decision-making group approves the five-year plan.

Budget Preparation, Review, and Approval

Once the five-year plan is developed, reviewed and approved the annual budget is prepared. The first year of the five-year plan is then specified in detail and budgets and operating guidelines for the intermediate unit are developed. The budget is then prepared for the appropriate review, approval and implementation.

SECTION II

EDUCATION-PLANNING-PROGRAMMING-BUDGETING SYSTEM PROCEDURE FOR INTERMEDIATE UNITS

The Annual PPBS Cycle

The flow chart below, entitled "Educational Planning-Programming-Budgeting System for Intermediate Units - Version I, Model 2 - Revised Manual System", provides an overview of the annual EPPBS Procedure. This chart shows the flow of data into and out of the predefined processes in the system and the sequence for completing the various processes. Seven milestones are shown in boxes at the bottom of the chart. These milestones represent key events - the accomplishment of which are essential to the completion of the EPPBS Cycle.

Milestone #1

A forecast analysis is completed to establish where errors, if any, occurred in the past school year's enrollment and revenue forecasts. This forecast analysis should include review of the underlying assumptions and conditions used in each forecast, and modification of those assumptions not consistent with experience over the past year.

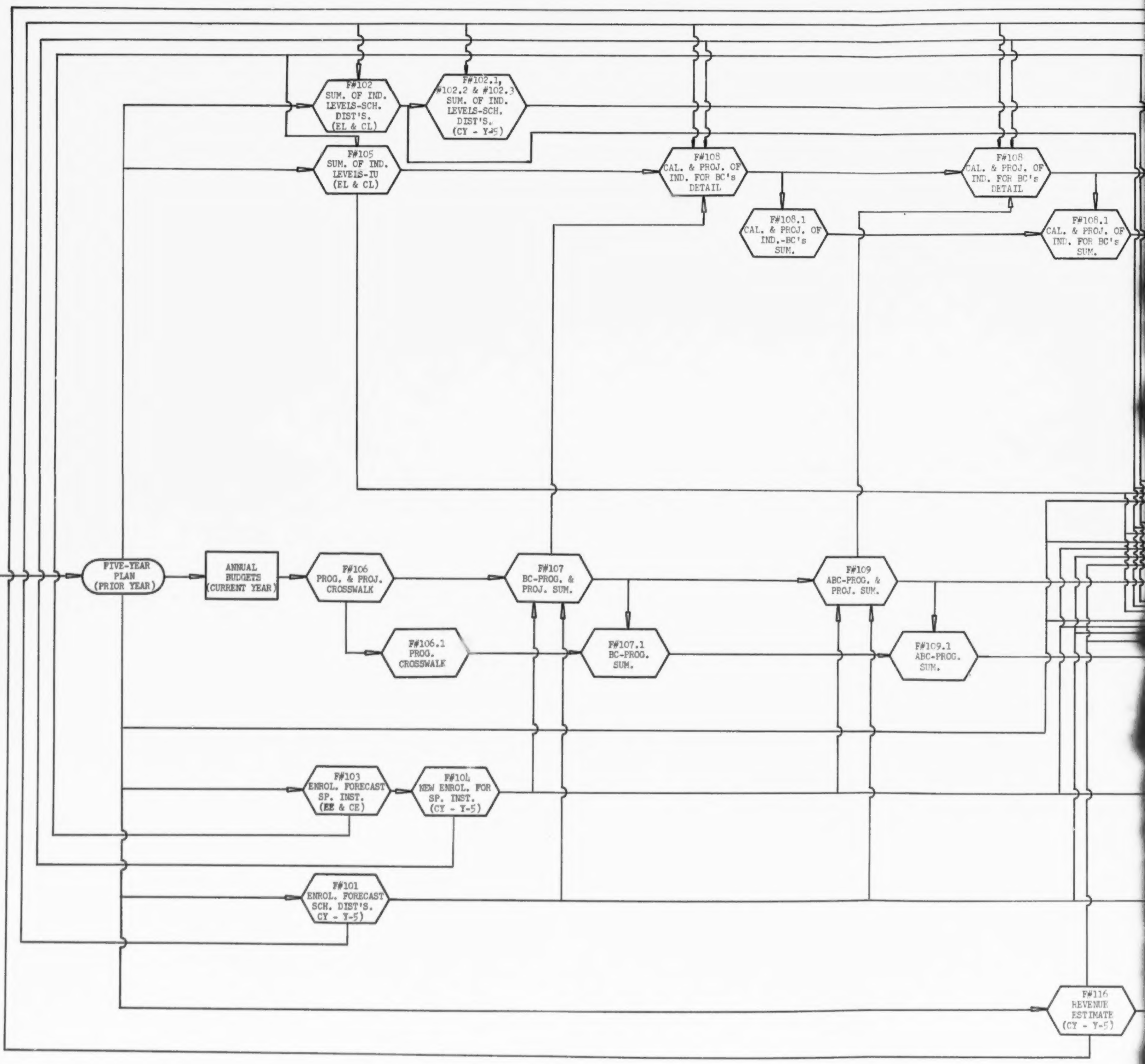
A program and project analysis of the current year's program and project effort also is made. This analysis includes (1) information on the extent to which the programs and projects have become operational, (2) discussion of the effect of policy changes on program and project implementation, (3) comments on program and project problems and ideas resulting from the analysis, and (4) recommended actions. The analysis is reviewed by the superintendent.

New projections of input variables are made using the forecast analysis. This new forecast is used as the basis for recomputing the base cases for both capital and operating expenses for the current year plus five additional years. The cost estimates of implementing the current five-year plan for the current year and the succeeding five years is revised. Using the base expenditure estimates, the probable indicator levels and the manpower feasibility associated with the recomputed base cases are re-estimated. New revenue estimates are established and the recomputed Final Base Case expenditures summarized for the intermediate unit as a whole.

Forms #101 through #117 must be completed before Milestone #1 can be achieved.

The basic assumption underlying the base cases, as stated previously, is that the objectives and constraints utilized in the development of the present five-year plan and current budget remain in effect for the current year and the next five years. The definition of base cases should be reviewed for the assumptions upon which the expenditure calculations for these cases are made.

EDUCATION

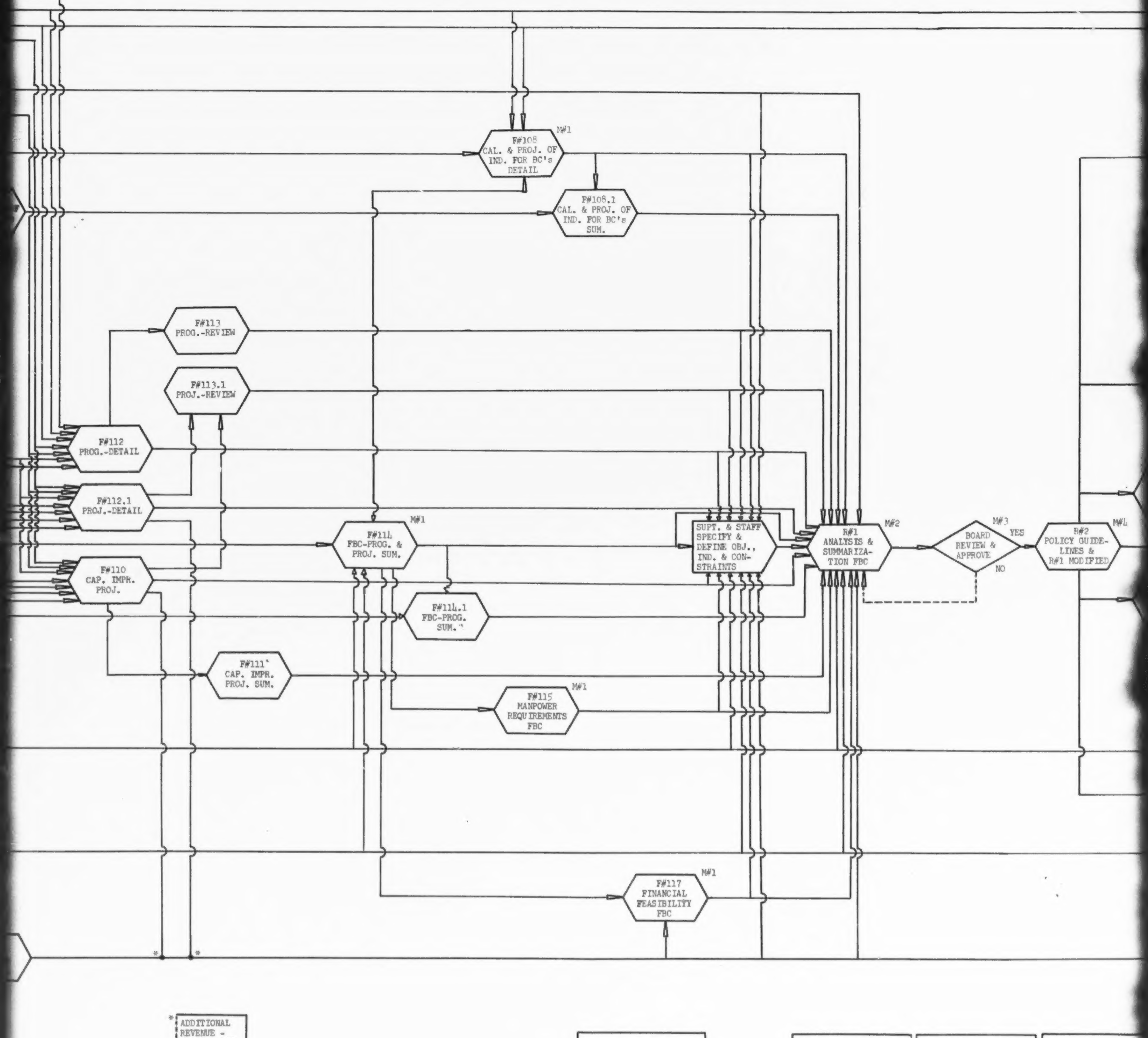

F#102 SUM. OF IND. LEVELS-SCH. DIST'S. (EL & CL)
F#102.1, #102.2 & #102.3 SUM. OF IND. LEVELS-SCH. DIST'S. (CY - Y-5)
F#105 SUM. OF IND. LEVELS-IU (EL & CL)
F#108 CAL. & PROJ. OF IND. FOR BC's DETAIL
F#108 CAL. & PROJ. OF IND. FOR BC's DETAIL
F#108.1 CAL. & PROJ. OF IND.-BC's SUM.
F#108.1 CAL. & PROJ. OF IND. FOR BC's SUM.
FIVE-YEAR PLAN (PRIOR YEAR)
ANNUAL BUDGETS (CURRENT YEAR)
F#106 PROG. & PROJ. CROSSWALK
F#106.1 PROG. CROSSWALK
F#107 BC-PROG. & PROJ. SUM.
F#107.1 BC-PROG. SUM.
F#109 ABC-PROG. & PROJ. SUM.
F#109.1 ABC-PROG. SUM.
F#103 ENROL. FORECAST SP. INST. (EE & CE)
F#104 NEW ENROL. FOR SP. INST. (CY - Y-5)
F#101 ENROL. FORECAST SCH. DIST'S. CY - Y-5)
F#116 REVENUE ESTIMATE (CY - Y-5)

NAL PLANNING - PROGRAMMING - BUDGETING SY

VERSION I, MODEL 2, REVISED MAN

PREDEFINED PROCESSES ARE SHOWN AND THEIR RELATIONSHIPS TO THE DEVEL

-DATA INPUTS OTHER THAN THOSE SHOWN ARE OUTLINED IN


F#108 CAL. & PROJ. OF IND. FOR BC's DETAIL
M#1
F#108.1 CAL. & PROJ. OF IND. FOR BC's SUM.
F#113 PROG.-REVIEW
F#113.1 PROJ.-REVIEW
F#112 PROG.-DETAIL
F#112.1 PROJ.-DETAIL
F#110 CAP. IMPR. PROJ.
F#114 FBC-PROG. & PROJ. SUM.
M#1
F#114.1 FBC-PROG. SUM.
F#111 CAP. IMPR. PROJ. SUM.
F#115 MANPOWER REQUIREMENTS FBC
M#1
SUPT. & STAFF SPECIFY & DEFINE OBJ., IND. & CONSTRAINTS
R#1 ANALYSIS & SUMMARIZATION FBC
M#2
BOARD REVIEW & APPROVE
M#3
YES
NO
R#2 POLICY GUIDE-LINES & R#1 MODIFIED
M#4
F#117 FINANCIAL FEASIBILITY FBC
M#1
*
*

* ADDITIONAL REVENUE - OPER. & CAP. IMPR. PROJ's.

M#1-COMPLETION OF REVIEW AND RE-PROJECTION OF THE PREVIOUS YEAR'S FIVE-YEAR PLAN

M#2-COMPLETION OF THE ANALYSIS AND SUMMARIZATION REPORT OF THE PREVIOUS YEAR'S FIVE-YEAR PLAN WITH RECOMMENDED CHANGES.

M#3-APPROVAL OF THE REPORT ON THE PREVIOUS YEAR'S FIVE-YEAR PLAN AND RECOMMENDED CHANGES

M#4-COMPLETION OF LIST OF OBJECTIVES DESIRED INDICATOR LEVELS, AND CONSTRA

YSTEM FOR INTERMEDIATE UNITS
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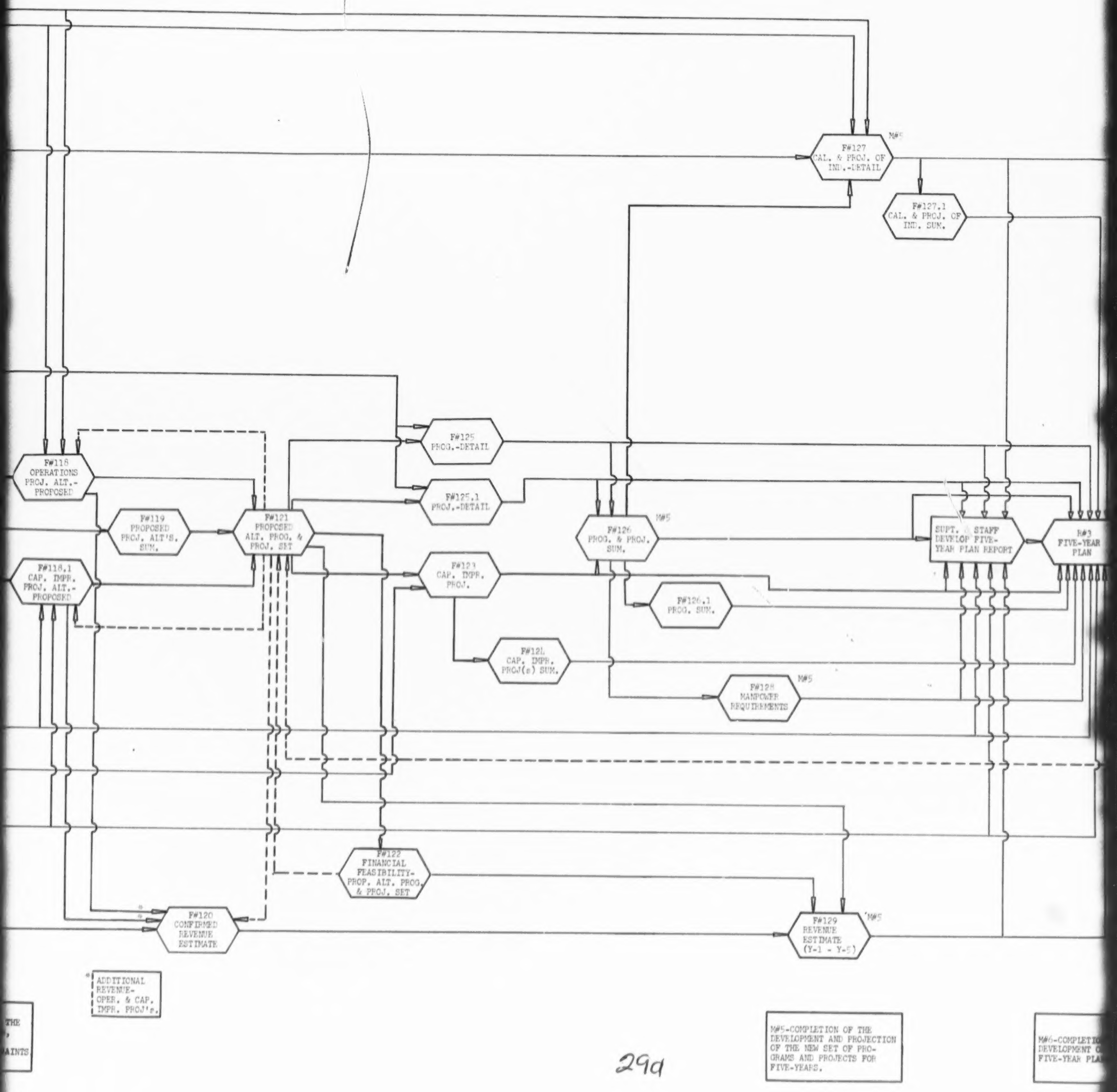
LOPMENT OF REPORTS AND PLANS
N THE APPENDIX


F#127
CAL. & PROJ. OF
IND.-DETAIL
M#5
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OPERATIONS
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PROG.-DETAIL
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PROJ.-DETAIL
F#119
PROPOSED
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SUM.
F#121
PROPOSED
ALT. PROG. &
PROJ. SET
F#126
PROG. & PROJ.
SUM.
M#5
SUPT. & STAFF
DEVELOP FIVE-
YEAR PLAN REPORT
R#3
FIVE-YEAR
PLAN
F#118.1
CAP. IMPR.
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PROPOSED
F#123
CAP. IMPR.
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F#126.1
PROG. SUM.
F#124
CAP. IMPR.
PROJ(s) SUM.
F#128
MANPOWER
REQUIREMENTS
M#5
F#122
FINANCIAL
FEASIBILITY-
PROP. ALT. PROG.
& PROJ. SET
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F#120
CONFIRMED
REVENUE
ESTIMATE
F#129
REVENUE
ESTIMATE
(Y-1 - Y-5)
M#5
* ADDITIONAL
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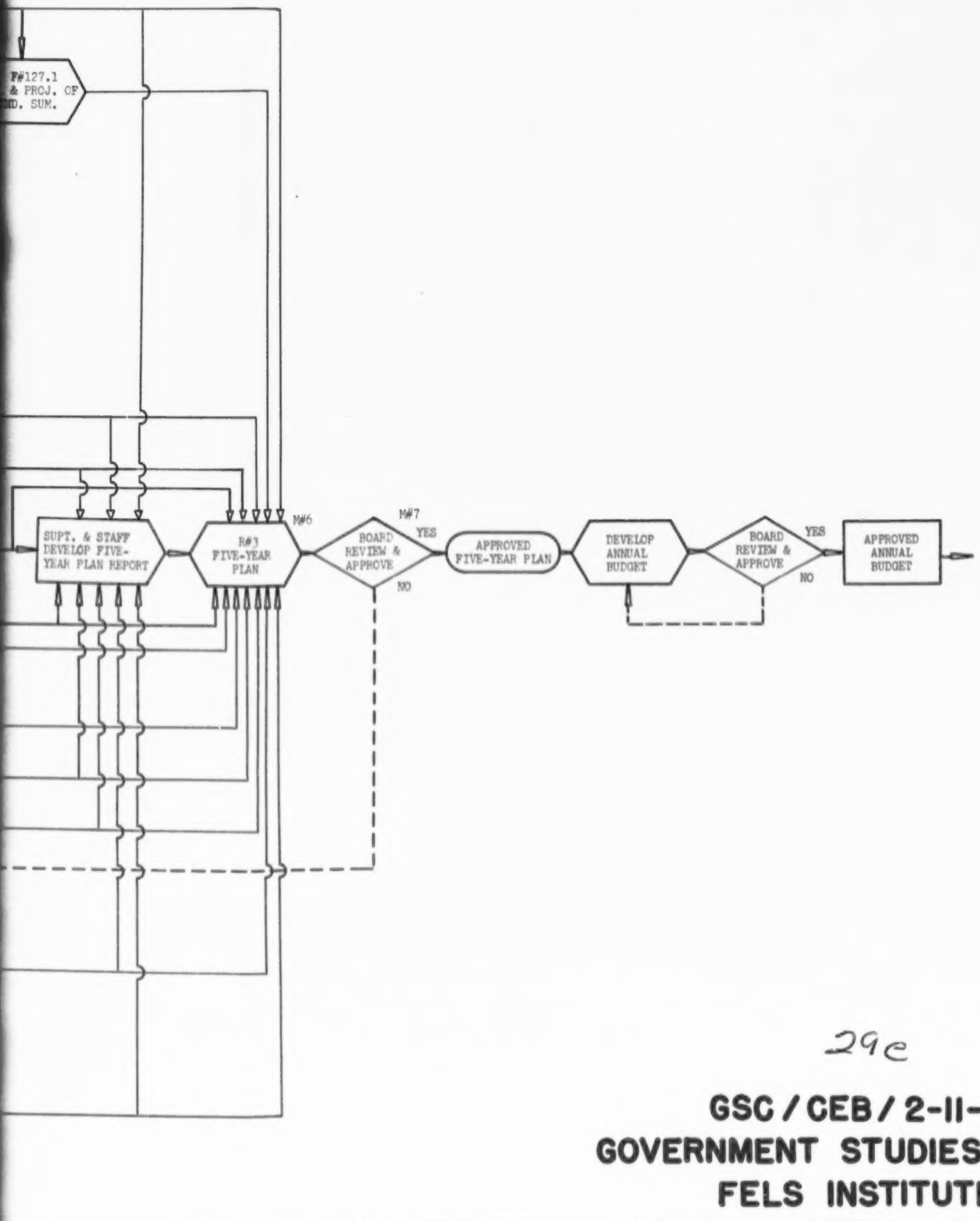
M#5-COMPLETION OF THE
DEVELOPMENT AND PROJECTION
OF THE NEW SET OF PRO-
GRAMS AND PROJECTS FOR
FIVE-YEARS.
M#6-COMPLETIO
DEVELOPMENT O
FIVE-YEAR PLA


F#127.1
& PROJ. OF
D. SUM.
SUPT. & STAFF DEVELOP FIVE-YEAR PLAN REPORT
R#3 FIVE-YEAR PLAN
M#6
M#7
BOARD REVIEW & APPROVE
YES
NO
APPROVED FIVE-YEAR PLAN
DEVELOP ANNUAL BUDGET
BOARD REVIEW & APPROVE
YES
NO
APPROVED ANNUAL BUDGET

M#6-COMPLETION OF THE DEVELOPMENT OF THE NEW FIVE-YEAR PLAN.

M#7-APPROVAL OF THE NEW FIVE-YEAR PLAN.

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Milestone #2

After completing the analysis and summarization of either the five-year plan developed during the last school year or the present operation projected five years in the future, the superintendent and his staff are now in a position to develop Report #1: Analysis and Summarization of the Final Base Case. Identification of problems, specification and definition of suggested objectives, setting of desired indicator levels, and identification of constraints is a major set of tasks that must be accomplished before Report #1 can be written. Report #1, which deals with the recomputed Final Base Case (five-year plan), including re-estimating indicator levels, new revenue forecasts, suggested objectives, desired indicator levels, and identified constraints, is prepared and presented to the board of school directors for their review and approval.

Milestone #3

The board reviews, modifies, and approves the objectives and desired indicator levels that are incorporated in Report #1. This review and approval is based on the recommendations of the superintendent concerning the problems revealed in the analysis and summarization of the Final Base Case.

Milestone #4

The superintendent prepares policy guidelines explaining the decisions of the board which establish the basis for the preparation of a new five-year plan for the intermediate unit.

Milestone #5

Program and project managers, in light of the policy guidelines, prepare project alternatives which may involve any, or all three, of the following options: (1) continue the project as established, (2) shift all or part of the resource allocations to a different project, or (3) alter the project. The proposed project alternatives include information on project costs, changes in indicator levels , statement of project objective(s), and project description.

Proposed project alternatives are summarized for the intermediate unit as a whole. From this list the superintendent forms alternative programs and project sets which include information on their overall cost, desired changes in indicator levels, and manpower requirement. Overall financial feasibility of the alternative program and project sets is established using the new revenue estimates and the summary costs of the alternative program and project sets. It may be necessary during this portion of the procedure to loop back through the system and develop new project alternatives. The superintendent selects from among the alternative program and project sets the most satisfactory or "best" set.

Forms #118 through #129 must be completed before Milestone #5 can be achieved.

The EPPBS Procedure provides for the analysis of program and project costs separately and for the merging or re-allocation of project costs into program costs. This aspect of the procedure permits the most effective planning by encouraging the introduction of change and innovation through the concept of the project and, at the same time, retains the notion of continuity through the concept of a continuous program set.

Milestone #6

The superintendent and his staff prepare the new five-year plan which forms Report #3. The report includes: (1) the "best" program and project set; (2) objectives; (3) desired, expected, and current indicator levels; (4) constraints; and (5) revenue estimates. The report is presented to the board for their review and approval.

Milestone #7

The board reviews, modifies, and approves Report #3: Five-Year Plan. During the course of the review and modification it may be necessary to loop back through the system to develop new alterantive program and project sets. The approved Five-Year Plan provides the basis for the preparation, review and approval of the annual budget. The intermediate unit should follow its normal method for the preparation of its budget.

Suggested Work Schedule

The work schedule contained in this section is shown in Figure 2 and has been prepared to assist the Intermediate Unit executive director or superintendent in completing the EPPBS Cycle. The schedule was developed on the following assumptions: (1) key top administrative officers of the intermediate unit have been thoroughly trained in the use of the manual version - PPBS - Version I, Model 2; (2) cooperating school district key administrative personnel have been similarly trained; and (3) cooperating school districts and the intermediate unit have agreed to work closely together in the development of their respective five-year plans.

It is expected that a more detailed work schedule and data and information flow procedure will be worked out for the EPPBS Cycle by each intermediate unit and cooperating school district. The schedule and procedure should accommodate the use of an advisory committee of superintendents of school districts in the intermediate unit area. An advisory committee would be most useful in aiding the intermediate unit superintendent and his staff in focusing the services of his organization on top priority problems in the intermediate unit area.

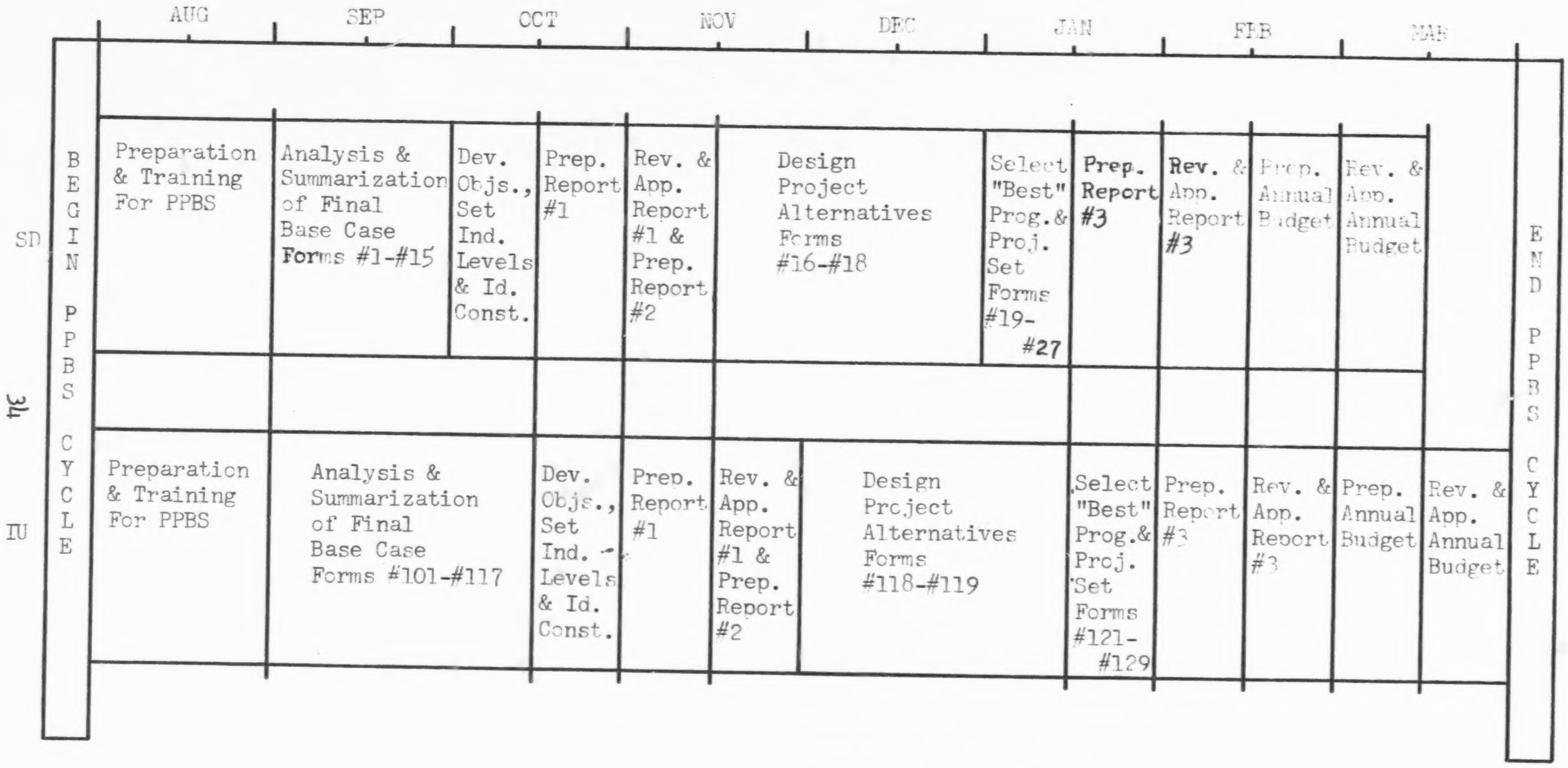

AUG
SEP
OCT
NOV
DEC
JAN
FEB
MAR
SD
BEGIN PPBS CYCLE
Preparation & Training For PPBS
Analysis & Summarization of Final Base Case Forms #1-#15
Dev. Objs., Set Ind. Levels & Id. Const.
Prep. Report #1
Rev. & App. Report #1 & Prep. Report #2
Design Project Alternatives Forms #16-#18
Select "Best" Prog.& Proj. Set Forms #19-#27
Prep. Report #3
Rev. & App. Report #3
Prep. Annual Budget
Rev. & App. Annual Budget
IU
Preparation & Training For PPBS
Analysis & Summarization of Final Base Case Forms #101-#117
Dev. Objs., Set Ind. Levels & Id. Const.
Prep. Report #1
Rev. & App. Report #1 & Prep. Report #2
Design Project Alternatives Forms #118-#119
Select "Best" Prog.& Proj. Set Forms #121-#129
Prep. Report #3
Rev. & App. Report #3
Prep. Annual Budget
Rev. & App. Annual Budget
END PPBS CYCLE

Fig. 2. PPBS Cycle work schedule of the cooperating school districts (SD) and the intermediate unit (IU).

August

1. The intermediate unit superintendent meets with his staff to discuss the work schedule for the coming PPBS Cycle. The assignment of responsibility for completing the various tasks are made at this time. Manuals, extra forms and worksheets are handed out.
2. Specialized training sessions are established for staff members who did not participate in previous training sessions and for clerks who will be assigned certain data gathering and analysis tasks.
3. Data files are examined and brought up to date. See the Appendix for suggested files and file content.
4. School districts in the intermediate unit area, actively participating with the intermediate unit in the development of five-year plans, will perform the same tasks during August.

September to Mid-October

1. The following forms are completed during this period:
   - a. Form #101: Enrollment Forecast - School Districts
   - b. Form #102: Summary of Expected and Current Indicator Levels - School District
   - c. Forms #102, #102.2 and #102.3: Summary of Y-1 through Y-5 Indicator Levels - School District
   - d. Form #103: Enrollment Forecast Analysis - Special Instruction
   - e. Form #104: New Enrollment Forecast - Special Instruction
   - f. Form #105: Summary of Indicator Levels - Intermediate Unit
   - g. Form #106: Program and Project Crosswalk
   - h. Form #106.1: Program Crosswalk
   - i. Form #107: Base Case - Program and Project Summary
   - j. Form #107.1: Base Case - Program Summary
   - k. Form #107.1: Base Case - Program Summary
   - l. Form #108: Calculations and Projections of Indicators for Base Case - Detail
   - m. Form #108.1: Calculations and Projections of Indicators for Base Case - Summary
   - n. Form #109: Adjusted Base Case - Program and Project Summary

   o. Form #109.1: Adjusted Base Case - Program and Summary
   p. Form #110: Capital Improvement Project
   q. Form #111: Capital Improvement Project(s) Summary
   r. Form #112: Program - Detail
   s. Form #112.1: Project - Detail
   t. Form #113: Program Review
   u. Form #113.1: Project Review
   v. Form #114: Final Base Case - Program and Project Summary
   w. Form #114.1: Final Base Case - Program Summary
   x. Form #115: Manpower Requirements - Final Base Case
   y. Form #116: Revenue Estimate
   z. Form #117: Financial Feasibility - Final Base Case

2. Cooperating school districts complete the Analysis and Summarization of the Final Base Case (Forms #1 - #15) by the end of September.
3. The specification and definition of objectives, setting of desired indicator levels, and identification of constraints should be completed by mid-October by the cooperating school districts.
4. The information and data flow between the school districts and the intermediate unit during this period

should be established according to a clearly defined work schedule.

Mid to Late-October

1. The intermediate unit superintendent and staff specify and define the objectives of the intermediate unit. These objectives should be based on the problems revealed in the analysis and summarization of the Final Base Cases of the intermediate unit and cooperating school districts. The setting of desired indicator levels will be based on the same information and data.
2. Constraints are identified during this period.
3. The first steps should be taken to identify feasible solutions or courses of action to resolve the problems identified in the analysis and summarization of the Final Base Cases.
4. A close working relationship with cooperating school districts should be developed during this period. The formation of objectives, setting of desired indicator levels, and consideration of feasible solutions for top priority problems is dependent upon this relationship.
5. Development of the format of Report #1: Analysis and Summarization of the Final Base Case concludes the intermediate unit's work in October.

6. The cooperating school districts should complete Report #1: Analysis and Summarization of the Final Base Case by the end of October.

Early to Mid-November

1. Report #1: Analysis and Summarization of the Final Base is prepared for presentation to the intermediate unit board of school directors.
2. Cooperating school districts present Report #1: Analysis and Summarization of the Final Base Case to their boards of school directors for review and approval. Upon approval of this report the cooperating school districts prepare Report #2: Policy Guidelines and disseminate this report to their boards and staff and to the intermediate unit superintendent.

Mid to Late-November

1. Report #1 should be presented to the board of school directors for review and approval. This report could also be delivered at a fall convention of all the school directors of the school districts served by the intermediate unit. The report provides an excellent analysis of the status of the intermediate unit and the implications of its present level of effort for the next five years.

2. Report #2: Policy Guidelines are prepared by the intermediate unit superintendent, following the approval of Report #1, and are to be disseminated among the board members and staff of the intermediate unit and the school district superintendents in the intermediate unit's area.
3. Cooperating school districts should begin design of their project alternatives.

Early December to Mid-January

1. The design of project alternatives, development of alternative program and project sets and completion of revenue estimates should be completed during this period. A close working relationship with cooperating school districts will be necessary for the development of relevant project alternatives.
2. The following forms should be completed during this period:
    a. Form #118: Operation Project Alternative - Proposed
    b. Form #118.1: Capital Improvement Project Alternative - Proposed
    c. Form #119: Proposed Project Alternatives - Summary
    d. Form #120: Confirmed Revenue Estimate

3. The cooperating school districts should complete the development of their project alternatives and the selection of the "best" set of programs and projects (Forms #16 - #27) during this period.
4. If the county commissioners budget is due in early January, this budget could be prepared in mid-December. Enough information should be available from Reports #1 and #2 to prepare this budget.

Mid to Late-January

1. Examination of all feasible program and project sets and the selection of the "best" set takes place during this period. The selection of the "best" program and project set should be done in consultation with the school districts in the intermediate unit area.
2. The following forms should be completed during this period:
    a. Form #121: Proposed Alternative Program and Project Set
    b. Form #122: Financial Feasibility
    c. Form #123: Capital Improvement Project
    d. Form #124: Capital Improvement Project Summary
    e. Form #125: Program - Detail
    f. Form #125.1: Project - Detail
    g. Form #126: Program and Project Summary
    h. Form #126.1: Program Summary

i. Form #127: Calculations and Projections of Indicators - Detail

j. Form #127.1: Calculations and Projections of Indicators - Summary

k. Form #128: Manpower Requirements

l. Form #129: Revenue Estimate

3. Cooperating school districts complete preparation of Report #3: Five-Year Plan during this time period.

Early to Mid-February

1. The preparation of the intermediate unit's Report #3: Five-Year Plan is completed during this period and will be influenced by any changes in the Report #3 of each cooperating school district because of the deliberations of their boards.

2. Report #3 for each cooperating school district is reviewed and approved. Copies of these reports should be disseminated among their boards and staffs and to the intermediate unit superintendent.

Mid to Late-February

1. Review and approval of the intermediate unit's Report #3 should take place during this period in February. Copies of this report should be disseminated among the intermediate unit's board and staff and the

superintendents of the school district in the intermediate unit's area.

2. The cooperating school districts prepare their Annual Budgets.

Early to Mid-March

1. The intermediate unit prepares the Annual Budget. This preparation should be influenced by the results of the budget deliberations of the cooperating school districts and other school districts in the intermediate unit's area.
2. The cooperating school districts' Annual Budgets should be approved during this period, though approval may be delayed until April of May. The delay of the Annual Budget approvals will not effect the general timing of the PPBS Cycle. However, delays in the approval of the budgets of cooperating and other school districts may effect anticipated revenues for specific programs and projects. If certain anticipated revenues cannot be realized because of the failure of the school district boards to approve them, then the Five-Year Plan and annual budget must be modified to reflect these changes.

Mid to Late-March

1. The intermediate unit's Annual Budget should be approved during this period.
2. The annual budget and Five-Year Plan can form the basis for a report on the future activities of the intermediate unit which could be presented at a spring convention of school directors from the school districts in the intermediate unit area.

Final Comments Concerning the Completion of the Forms, Worksheets, and Reports

The primary goal is to plan for and project the expenditures of all foreseeable programs and projects. This involves not only accounting for all the programs and projects which will generate expenditures, but also estimating as closely as possible how much they will cost. Every person responsible for some portion of the planning and programming should be conscientious in making these estimates, recognizing, of course, that the farther out into the five-year period that estimates are made, the greater the chance of error.

Expenditure estimates for base cases are restricted to those programs and projects which had been planned and programmed in the previous Five-Year Plan or are reflected in the current budget. Expenditure estimates will change only where changes in policy have been made since the plan was adopted, where policy rules will be violated, or where assumptions incorporated in the plan are no longer valid.

Expenditures for project alternatives are entirely new and should be based on the activities which are to be undertaken for each project alternative.

The following instructions apply to the completion of all forms, worksheets, and reports:

1. Round all amounts to the nearest $10 for the first year and nearest $100 for all additional years.
2. Be concise and factual in all explanations.
3. Information and data which cannot be supplied in the space given on the forms, but which is vital to an understanding of the intermediate unit's plans and programs, should be inserted on the attached sheets.

Form #101: New Enrollment Forecast - School Districts

1. Fill in the name of your intermediate unit or county office.

2. The Current Year's (CY) figures can be taken directly from the first attendance report of the school districts for the current school year.

3. You may use the Government Studies Center's pupil population forecast procedure in the Appendix for Y-1 through Y-5 for the local school districts in your area or you may use your own if you prefer. The Government Studies Center's forecast procedure does not handle special pupils. You will need your own forecast for both elementary and secondary special pupils.

4. Use Form #101 as a worksheet for recording each school district's (SD) enrollment forecast. One copy must be completed for each school district. Combine these forecasts and enter the figures on Form #101.

5. Calculate the average daily membership (ADM) for CY through Y-5 by performing the six steps shown on Worksheet #101.1.

6. Calculate the weighted pupil enrollment-staff (WPE-S) for CY through Y-5 by using the five steps shown on Worksheet #101.2.

7. Calculate weighted pupil enrollment-finance (WPE-F) for CY through Y-5 by using the five steps shown on Worksheet #101.3.

WORKSHEET #101.1

Form #101 - New Enrollment Forecast - School Districts

Directions for Calculating Average Daily Membership (ADM) for CY Through Y-5

Step 1

Gather the enrollment figures for all school districts in your area over the past three school years. One copy of Form #101 should be completed for each school district. Use Form #101 as a worksheet for each school district. Weight the kindergarten enrollment figure for each school district by multiplying the figure by 0.5 if the kindergarten meets for a single session; if not, add the kindergarten enrollment to grades 1-12 and special education (elementary and secondary) enrollments. Combine these enrollment figures for each year.

School Year	Kdg.	1-12	Sp. Ed.	Total

Weighted enrollment (WE) or Non-Weighted enrollment (NWE) _____

Step 2

Gather the end of the year ADM figures over the past three years for all school districts in your area. These data may also be recorded on copies of Form #101 for each school district. Combine these ADM figures for each year.

School Year	ADM

Step 3

Divide the ADM for each year by the WE or NWE for that year to arrive at the ratio (R) ADM is of WE or NWE for each year. Add the three ratios and divide by three to determine the mean ratio (MR) for the three years.

School Year	ADM / WE or NWE = R
________	___/ ________ = ____
________	___/ ________ = ____
________	___/ ________ = ____

R's / 3 = MR
_____/ 3 = ________

Step 4

Combine the enrollment forecasts for each school district for CY through Y-5. Weight the kindergarten enrollments, if single session, by 0.5 for each school district.

School Year	Kdg.	1-12	Sp. Ed.	Total
CY	____	____	________	_____
Y-1	____	____	________	_____
Y-2	____	____	________	_____
Y-3	____	____	________	_____
Y-4	____	____	________	_____
Y-5	____	____	________	_____

Step 5

Multiply the weighted or non-weighted enrollment (WE or NWE) for each year by the mean ratio (MR) to derive the ADM for CY through Y-5.

School Year	WE or NWE	x	MR	=	ADM
CY	____	x	____	=	____
Y-1	____	x	____	=	____
Y-2	____	x	____	=	____
Y-3	____	x	____	=	____
Y-4	____	x	____	=	____
Y-5	____	x	____	=	____

Step 6

Record these data on Form #101.

WORKSHEET #101.2

Form #101 - New Enrollment Forecast - School Districts

Directions for Calculating Weighted Pupil Enrollment - Staff (WPE-S) for CY Through Y-5

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
Step 1 Multiply the combined kindergarten enrollments by 0.5 if the kindergarten meets for a single session, if not, do not weight figures.	___	___	___	___	___	___
Step 2 Multiply the grades 1-6 and special education elementary (tuition special education pupils excluded) enrollments by 1.0.	___	___	___	___	___	___
Step 3 If vocational-technical pupils are taught within the school district, skip this step. If they are taught at a vocational-technical school multiply the vocational-technical pupils enrollment figures by 0.55.	___	___	___	___	___	___
Step 4 Multiply the grades 7-12 (exclusive of vocational-technical students taught at a vocational-technical school) and special education-secondary (tuition special education pupils excluded) enrollments by 1.1.	___	___	___	___	___	___

Step 5

Add the weighted enrollments together. Transfer these figures to the appropriate cells at the bottom of Form #101. ___ ___ ___ ___ ___ ___

WORKSHEET #101.3

Form #101 - New Enrollment Forecast - School District

Directions for Calculating Weighted Pupils Enrollment-Finance (WPE-F) for CY Through Y-5

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
Step 1 Multiply the combined kindergarten enrollments by 0.5 if the kindergarten meets for a single session, if not, do not weight figures.	___	___	___	___	___	___
Step 2 Multiply the grandes 1-6 and special education elementary (tuition special education pupils excluded) enrollments by 1.0.	___	___	___	___	___	___
Step 3 If vocational-technical pupils are taught within the school district, skip this step. If they are taught at a vocational-technical school multiply the vocational-technical pupils enrollment figures by 0.63.	___	___	___	___	___	___
Step 4 Multiply the grades 7-12 (exclusive of vocational-technical students taught at a vocational-technical school) and special education-secondary (tuition special education pupils excluded) enrollments by 1.25.	___	___	___	___	___	___

Step 5

Add the weighted enrollments together. Transfer these figures to the appropriate cells at the bottom of Form #101. ___ ___ ___ ___ ___ ___

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	NEW ENROLLMENT FORECAST - SCHOOL DISTRICTS	

Educational Unit:

Fiscal Year / Grade Level	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Kindergarten						
1						
2						
3						
4						
5						
6						
Total (1-6)						
Special Ed. - Elem.						
7						
8						
9						
10						
11						
12						
Total (7-12)						
Special Ed. - Sec.						
Total Enrollment						
ADM						
WPE - S						
WPE - F						

Form #101

Form #102: Summary of Expected and Current Indicator Levels - School Districts
Form #102.1, Form #102.2 and Form #102.3: Summary of Y-1 Through Y-5 Indicator Levels - School Districts

1. Fill in the name of your intermediate unit or county office on these forms.

2. Fill in the names of the indicators listed and defined below on Forms #102, #102.2 and #102.3:

   a. Indicator #1 - Excess Enrollment (EE) - Defined as total average daily membership (ADM) in the district minus the total classroom capacity (TCC).

   b. Indicator #2 - Classroom Teacher per 1000 Weighted Pupils (CTP 1000 WP) - Defined as total number of classroom teachers in the district divided by the total weighted enrollment, times 1000.

   c. Indicator #3 - Mean Cumulative Course Offerings (Grades 7-12) (MCCO) - Defined as total number of courses for grades 7 through 12 of 200 minutes per week.

   d. Indicator #4 - Professional Instructional Specialists per 1000 Pupils (PISP 1000 WP) - Defined as total number of instructional specialists in the district divided by the total weighted enrollment, times 1000.

   e. Indicator #5 - Total Dollar Expenditures for Curriculum Materials Supplies and Library Books Per Weighted Pupil (TDEMWP) - Defined as the total dollars allocated in the current budget for curriculum materials, supplies, and library books divided by the total weighted enrollment.

   f. Indicator #6 - Net Total Expenditures Per Weighted Pupil (NTEWP) - Defined as the net total expenditures divided by the total weighted enrollment.

   g. Indicator #7 - Professional Staff Turnover Rate in Percent Per Year (PSTR) - Defined as number of professional staff separations for a given school year, divided by total professional staff budgeted for that year. Multiply the resulting quotient by 100.

h. Indicator #8 - Percent of Professional Staff with Masters Degrees or More (PPSMDM) - Defined as the number of professional staff at the beginning of a given school year with at least a masters degree, divided by total professional staff budgeted for that year. Multiply the resulting quotient by 100.

i. Indicator #9 - Percent Graduating Class Attending Post High School Education (PGCAPHE) - Defiend as the number of previous year's graduating class attending some form of post high school education full or part-time divided by total number in previous year's graduating class. Multiply the resulting quotient by 100.

j. Indicator #10 - Drop-Out Percent for Grades 10-12 (DOP) - Defined as total number of pupils who would have been in 10, 11, and 12 grades during the current school year but are classified on your school records as "withdrew-drop-out" as of the beginning of the current school year, divided by the total enrollment in grades 10, 11, and 12 at the beginning of the current school year. Multiply the resulting quotient by 100.

k. Indicator #11 - Language Achievement - Deviation from Grade Level (LADGL) - Defined as the mean score on the language portions of achievement test administered to grades 3, 6, 9, and 12, or other grades close to these levels, converted to "months behind or ahead of grade level" for each grade, based on test norms for that grade.

l. Indicator #12 - Mathematics Achievement - Deviation from Grade Level (MADGL) - Defiend in the same manner as Indicator #11, except scores of mathematics portions of the achievement are used.

3. If the school districts in your area used the PPBS Version I, Model 2 Procedure (manual version) or PPBS Version II, Model 1 Procedure (semi-automated) last school year record the Expected Level (EL) for each indicator on Worksheet #102.1. Perform the same task for the Current Level (CL) on Worksheet #102.2. However, if the school districts have not used either of the PPBS versions disregard this data gathering step because it will not be possible for you to calculate the mean EL or mean CL for the school districts in your area.

4. Calculate the mean EL for each indicator and record these figures on Worksheet #102.1. Record the high and low level for each indicator on Worksheet #102.1. Perform the same calculations and record the high and low levels for the CL on Worksheet #102.2. Record these data on Form #102. Calculate the difference (D) between the mean EL and the mean CL (+ or -) and enter these data in the Difference Column.

   EL - CL = D + or -

5. Gather data for the indicator levels from CY through Y-5 from those school districts who used one of the PPBS versions last school year. For those districts which didn't use one of the PPBS versions, gather the raw data and perform the calculations for each school district according to the steps outlined on the following worksheets and transfer these data to the appropriate copy of Form #102.1:

a.	Indicator # 1	-	Worksheet #102.3
b.	Indicator # 2	-	Worksheet #102.4
c.	Indicator # 3	-	Worksheet #102.5
d.	Indicator # 4	-	Worksheet #102.6
e.	Indicator # 5	-	Worksheet #102.7
f.	Indicator # 6	-	Worksheet #102.8
g.	Indicator # 7	-	Worksheet #102.9
h.	Indicator # 8	-	Worksheet #102.10
i.	Indicator # 9	-	Worksheet #102.11
j.	Indicator #10	-	Worksheet #102.12
k.	Indicator #11	-	Worksheet #102.13
l.	Indicator #12	-	Worksheet #102.14

6. Calculate the mean level and show the high and low levels for each indicator from CY through Y-5 for your area. Record these figures on Form #102.1. Use a separate form for each year.

7. Plot the mean, high and low levels of each indicator on Form #102.2 and Form #102.3.

WORKSHEET #102.1

Form #102 - Summary of Expected and Current Indicator Levels - School Districts

School Districts	Indicator - Expected Level											
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
No.Scho.Dist.Used to Compute Mean												
High												
Mean												
Low												

WORKSHEET #102.2

Form #102 - Summary of Expected and Current Indicator Levels - School Districts

School District	Indicator - Current Level											
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
No.Sch.Dist. Used to Compute Mean												
High												
Mean												
Low												

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	SUMMARY OF EXPECTED AND CURRENT INDICATOR LEVELS - SCHOOL DISTRICTS	

Educational Unit:

Indicator	Expected Level			Current Level			Difference + or -
	High	Mean	Low	High	Mean	Low	

Form #102

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	SUMMARY OF Y-1 THROUGH Y-5 INDICATOR LEVELS - SCHOOL DISTRICTS	

Educational Unit:

School Districts	Indicator - Y-____Level											
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
No.Sch.Dist.Used to Compute Mean												
High												
Mean												
Low												

Form #102.1

WORKSHEET #102.3

Form #102.1 - Summary of Y-1 Through Y-5 Indicator Levels - School Districts

Directions for Calculating Indicator #1

Excess Enrollment (EE) - Defined as total average daily membership in the district minus the total classroom capacity.

Step 1

Work out the ADM for each school district for CY through Y-5 (use Worksheet #101.1) and transfer the ADM's to the appropriate school district copy of Form #101. Record the ADM below:

CY __________ Y-3__________
Y-1__________ Y-4__________
Y-2__________ Y-5__________

Step 2

Record below the total number of standard academic classroom (TNSAC) figure for the Current Year:

TNSAC__________

Step 3

Record below the total number of standard academic classrooms added (ACA) because of capital improvement(s) and add these to the total number of classrooms available for the previous year:

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNSAC	___	___				
Y-1	ACA		+___				
Y-1	TNSAC		___	___			
Y-2	ACA			+___			
Y-2	TNSAC			___	___		
Y-3	ACA				+___		
Y-3	TNSAC				___	___	
Y-4	ACA					+___	
Y-4	TNSAC					___	___
Y-5	ACA						+___
Y-5	TNSAC						___

Step 4

Calculate the total classroom capacity (TCC) by multiplying the TNSAC by 25 pupils per classroom.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
TNSAC	___	___	___	___	___	___
	x25	x25	x25	x25	x25	x25
TCC	___	___	___	___	___	___

Step 5

Subtract TCC from the ADM for CY through Y-5 to derive the excess enrollment (EE) for each year.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
ADM	___	___	___	___	___	___
TCC	-___	-___	-___	-___	-___	-___
EE (+ or -)	___	___	___	___	___	___

Step 6

Record these data on Form #102.1.

WORKSHEET #102.4

Form #102.1 - Summary of Y-1 Through Y-5 Indicator Levels - School Districts

Directions for Calculating Indicator #2

Classroom Teachers per 1000 Weighted Pupils (CTWP) - Defined as total number of classroom teachers in the district divided by the total weighted enrollment, times 1000.

Note:

1. The Classroom Teacher is defined as a member of the professional staff who spends at least half-time in a regular classroom assignment. Count a classroom teacher as 0.5 (50 percent of time), 0.75 (75 percent of time), or 1.0 (100 percent of time).

Step 1

Calculate the weighted pupil enrollment-staff (WPE-S) for the school district for CY through Y-5 (use Worksheet #101.2) and transfer the WPE-S's to the school district's copy of Form #101. Record the WPE-S's below:

CY ____________ Y-3 ____________
Y-1 ____________ Y-4 ____________
Y-2 ____________ Y-5 ____________

Step 2

Record below the total number of classroom teachers (TNCT) for the Current Year (CY):

Total number of classroom teachers (TNCT) ________

Step 3

Calculate the pupil-teacher ratio (PTR) for CY by dividing the WPE-S by the TNCT.

WPE-S / TNCT = PTR

_____ / ____ = ____

Step 4

Calculate the TNCT for Y-1 through Y-5 by dividing the PTR into the WPE-S for each year.

	WPE-S	/	PTR	=	TNCT
Y-1	_____	/	____	=	________
Y-2	_____	/	____	=	________
Y-3	_____	/	____	=	________
Y-4	_____	/	____	=	________
Y-5	____	/	____	=	________

Step 5

Use the following formula to derive the classroom teachers per 1000 weighted pupils (CTWP) for each year:

	(TNCT / WPE-S)	x	1000	=	CTWP
CY	(_____/_______)	x	1000	=	______
Y-1	(_____/_______)	x	1000	=	______
Y-2	(_____/_______)	x	1000	=	______
Y-3	(_____/_______)	x	1000	=	______
Y-4	(_____/_______)	x	1000	=	______
Y-5	(_____/_______)	x	1000	=	______

Step 6

Record these data on Form #102.1.

WORKSHEET #102.5

Form #102.1 - Summary of Y-1 Through Y-5 Indicator Levels - School District

Directions for Calculating Indicator #3

Mean Cumulative Course Offerings (Grade 7-12) (MCCO) - Defined as total number of courses for grades 7 through 12 of 200 minutes per week.

Note:

1. Use the survey form for secondary course offerings provided in the Appendix for recording data for this indicator.
2. This indicator does not include elementary curricula. It is assumed that a broad secondary school program implies an adequate elementary school program.
3. This indicator is expressed as equivalents of secondary courses meeting for 200 minutes per week throughout the school year.
4. Special versions of the same subject at a given grade level are regarded as different courses.
5. Courses meeting for less than a year, or less than 200 minutes per week are counted as fractional equivalents.
6. Courses exceeding 200 minutes per week are counted as a fraction more than one course equivalent.
7. The level of this indicator will remain constant from CY through Y-5 in the absence of specific information concerning additions or changes to the secondary curriculum.

Step 1

Record below the Current Year's mean cumulative course offerings (MCCO) for grades 7-12.

MCCO__________

Step 2

Record below any planned changes (+ or -) in the MCCO for each year:

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	MCCO	___	___				
Y-1	Changes (+ or -)		___				
Y-1	MCCO		___	___			
Y-2	Changes (+ or -)			___			
Y-2	MCCO			___	___		
Y-3	Changes (+ or -)				___		
Y-3	MCCO				___	___	
Y-4	Changes (+ or -)					___	
Y-4	MCCO					___	___
Y-5	Changes (+ or -)						___
Y-5	MCCO						___

Step 3

Record these data on Form #102.1.

WORKSHEET #102.6

Form #102.1 - Summary of Y-1 Through Y-5 Indicator Levels - School District

Directions for Calculating Indicator #4

Professional Instructional Specialists per 1000 Weighted Pupils (PISWP) - Defined as total number of instructional specialists in the district divided by the total weighted enrollment, times 1000.

Note:

1. The following specialists who supplement or support the professional classroom teacher are included: art (elementary), music (elementary), reading, speech correction, librarian, audio-visual, guidance, health (nurses), psychologists, helping teachers, and others. Count a specialist as 1.0 only if he spends 100 percent of his time in his field of specialization, otherwise, count him as 0.5 (50 percent of time), 0.75 (75 percent of time), or 0.8 (80 percent of time).

Step 1

Record below weighted pupil enrollment-staff (WPE-S) from Worksheet #102.4:

CY __________
Y-1 __________
Y-2 __________

Y-3 __________
Y-4 __________
Y-5 __________

Step 2

Record below the total number of professional instructional specialists (TNPIS) for the Current Year:

TNPIS__________

Step 3

Calculate the TNPIS for Y-1 through Y-5 by adding the number of professional instructional specialists (ANPIS) that may be added because of capital improvement(s).

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNPIS	___	___				
Y-1	ANPIS		+___				
Y-1	TNPIS		___	___			
Y-2	ANPIS			+___			
Y-2	TNPIS			___	___		
Y-3	ANPIS				+___		
Y-3	TNPIS				___	___	
Y-4	ANPIS					+___	
Y-4	TNPIS					___	___
Y-5	ANPIS						+___
Y-5	TNPIS						___

Step 4

Use the following formula to derive the professional instructional specialists per 1000 weighted pupils (PISWP) for each year:

(TNPIS / WPE-S) x 1000 = PISWP

CY (______/________) x 1000 = ________

Y-1 (______/________) x 1000 = ________

Y-2 (______/________) x 1000 = ________

Y-3 (______/________) x 1000 = ________

Y-4 (______/________) x 1000 = ________

Y-5 (______/________) x 1000 = ________

Step 5

Record these data on Form #102.1.

WORKSHEET #102.7

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Levels - School Districts

Directions for Calculating Indicator #5

Total Dollar Expenditures for Curriculum Materials, Supplies, and Library Books Per Weighted Pupil (TDEMWP) - Defined as the total dollars allocated in the current budget for curriculum materials, supplies, and library books divided by the total weighted enrollment.

Note:

1. This indicator does not include expenditures for text books and teaching materials absolutely essential for classroom instruction. Only use expenditures from Account Numbers 0223, 0224, and 0229 (and only use items from 0229 account if they are supplementary curriculum materials or supplies).

Step 1

Calculate the weighted pupil enrollment-finance (WPE-F) for each school district for CY through Y-5 if it it was not calculated previously and recorded on the school district's copy of Form #101. Use Worksheet #101.3 for your calculations and transfer the WPE-F's to the school district's copy of Form #101. Record the WPE-F's below:

CY	__________	Y-3	__________
Y-1	__________	Y-4	__________
Y-2	__________	Y-5	__________

Step 2

Record below the Current Year's (CY) total dollar expenditures for curriculum materials, supplies, and library books (TDEM):

TDEM __________

Step 3

Calculate the total dollar expenditures for curriculum materials, supplies, and library books per weighted pupil (TDEMWP) for CY by dividing the TDEM by the WPE-F.

TDEM / WPE-F = TDEMWP

____ / _____ = ______

Step 4

Calculate the TDEMWP for Y-1 through Y-5 by multiplying the TDEMWP by a compound inflation rate (CIR). Refer to Table 1 for the rate. Only use one rate for all the school districts in your area. The selection of the rate should be based on an examination of the past three to five years of experience. Record the basis for selecting the CIR on a separate sheet of paper and attach to this page.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	TDEMWP	___	___	___	___	___	___
	CIR		x___	x___	x___	x___	x___
	TDEMWP	___	___	___	___	___	___

Step 5

Record these data on Form #102.1.

Table 1

Compound Inflation Rates

Fiscal Year Rate Per Year	Y-1	Y-2	Y-3	Y-4	Y-5
1.0 %	1.0100	1.0201	1.0303	1.0406	1.0510
1.5	1.0150	1.0302	1.0457	1.0614	1.0773
2.0	1.0200	1.0404	1.0612	1.0824	1.1041
2.5	1.0250	1.0506	1.0769	1.1038	1.1314
3.0	1.0300	1.0609	1.0927	1.1255	1.1593
3.5	1.0350	1.0712	1.1087	1.1475	1.1877
4.0	1.0400	1.0816	1.1249	1.1699	1.2166
4.5	1.0450	1.0920	1.1412	1.1925	1.2462
5.0	1.0500	1.1025	1.1576	1.2155	1.2763
5.5	1.0550	1.1130	1.1742	1.2388	1.3070
6.0	1.0600	1.1236	1.1910	1.2625	1.3382
6.5	1.0650	1.1342	1.2079	1.2865	1.3701
7.0	1.0700	1.1449	1.2250	1.3108	1.4026
7.5	1.0750	1.1556	1.2423	1.3355	1.4356
8.0	1.0800	1.1664	1.2597	1.3605	1.4693
8.5	1.0850	1.1772	1.2773	1.3858	1.5036
9.0	1.0900	1.1881	1.2950	1.4116	1.5386
9.5	1.0950	1.1990	1.3129	1.4377	1.5742
10.0	1.1000	1.2100	1.3310	1.4641	1.6105
11.0	1.1100	1.2321	1.3676	1.5180	1.6850
12.0	1.1200	1.2544	1.4049	1.5735	1.7623
13.0	1.1300	1.2769	1.4429	1.6305	1.8424
14.0	1.1400	1.2996	1.4815	1.6890	1.9254
15.0	1.1500	1.3225	1.5209	1.7490	2.0114

WORKSHEET #102.8

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Levels - School Districts

Directions for Calculating Indicator #6

Net Total Expenditures Per Weighted Pupil (NTEWP) - Defined as the net total expenditures divided by the total weighted enrollment.

Note:

1. Subtract inter-system tuition payments to in-state and out-of-state school systems, districts, jointures, or institutions (Account Numbers 1481, 1482, 1483, 1484, 1485, 1486, 1487, and 1488) from the total expenditures figure to determine the net total expenditures.

Step 1

Record below the weighted pupil enrollment-finance (WPE-F) for the school district for CY through Y-5 from Worksheet #102.7:

CY __________ Y-3 __________
Y-1 __________ Y-4 __________
Y-2 __________ Y-5 __________

Step 2

Record below the Current Year's (CY) net total expenditures (NTE) for the school district.

NTE __________

Step 3

Calculate the net total expenditures per weighted pupil (NTEWP) for CY by dividing the NTE by the WPE-F.

NTE / WPE-F = NTEWP

____ / _____ = ______

Step 4

Calculate the CY NTEWP for each year for Y-1 through Y-5 by multiplying the NTEWP for each year by a compound inflation rate (CIR). Refer to Table 1 for the rate. Only use one rate for all school districts in your area. The selection of the rate should be based on an examination of the past three to five years of experience. Record the basis for selecting the CIR on a separate sheet and attach the sheet to this page.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	NTEWP	___	___	___	___	___	___
	CIR		x___	x___	x___	x___	x___
	NTEWP	___	___	___	___	___	___

Step 5

Record these data on Form #102.1.

WORKSHEET #102.9

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Levels - School Districts

Directions for Calculating Indicator #7

Professional Staff Turnover Rate in Percent Per Year (PSTR) - Defined as number of professional staff separations for a given school year, divided by total professional staff budgeted for that year. Multiply the resulting quotient by 100.

Note:

1. Professional staff includes classroom teachers, instructional specialists, and administrators.
2. Hold the previous school year's professional staff turnover rate (PSTR) constant for the Current Year (CY) through Y-5.

Step 1

Record below last year's total professional staff (TPS) and the number of professional staff separations (PSS):

TPS __________

PSS __________

Step 2

Use the following formula to derive the PSTR in percent per year.

(PSS / TPS) x 100 = PSTR

(___/ ____) x 100 = _______

Step 3

Record these data on Form #102.1.

WORKSHEET #102.10

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Levels - Local School District

Directions for Calculating Indicator #8

Percent of Professional Staff with Master Degrees or More (PPSMD) - Defined as the number of professional staff at the beginning of a given school year with at least a masters degree, divided by total professional staff budgeted for that year (TPS). Multiply the resulting quotient by 100.

Note:

1. Professional staff includes classroom teachers, instructional specialists, and administrators.
2. Hold the previous school year's percent of professional staff with masters degrees or more constant for the Current Year (CY) through Y-5.

Step 1

Record below last year's total professional staff (TPS) and the number of professional staff with masters degree or more (PSMD):

TPS __________

PSMD __________

Step 2

Use the following formula to derive the percent of professional staff with a masters degree or more (PPSMD):

(PSMD / TPS) x 100 = PPSMD

(____ / ____) x 100 = _____

Step 3

Record these data on Form #102.1.

WORKSHEET #102.11

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Levels - School District

Directions for Calculating Indicator #9

Percent Graduating Class Attending Post High School Education (PGCAPHE) - Defined as the number of previous year's graduating class attending some form of post high school education full or part-time divided by total number in previous year's graduating class. Multiply the resulting quotient by 100.

Note:

1. This indicator includes all types of continuing education.
2. The percent of graduating class attending post high school education full or part-time for last school year's graduating class remains constant for the Current Year (CY) through Y-5.

Step 1

Record below the total number in last year's graduating class (GC) and the total number of pupils attending post high school education (PAPHE):

TGC __________

PAPHE __________

Step 2

Use the following formula to derive the percent of the graduating class of last school year who attended post high school education (PGCAPHE):

(PAPHE / TGC) x 100 = PGCAPHE

(____ / ____) x 100 = ______

Step 3

Record these data on Form #102.1.

WORKSHEET #102.12

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Levels - School District

Directions for Calculating Indicator #10

Drop-Out Percent for Grades 10-12 (DOP) - Defined as total number of pupils who would have been in 10, 11, and 12 grades during the current school year but are classified on your school records as "withdrew-drop-out" as of the beginning of the current school year, divided by the total enrollment in grades 10, 11, and 12 at the beginning of the current school year. Multiply the resulting quotient by 100.

Note:

1. The drop-out percent for grades 10-12 is held constant for the Current Year (CY) through Y-5.

Step 1

Record below this year's total enrollment for grades 10 through 12 (TE) and the total number of pupils who would have been in 10, 11, or 12 grade this year had they not dropped out of school (DO) last school year or during this past summer:

TE __________

DO __________

Step 2

Use the following formula to derive the drop-out percent ofr grades 10 through 12 (DOP):

(DO / TE) x 100 = DOP

(___/ ___) x 100 = ______

Step 3

Record these data on Form #102.1.

WORKSHEET #102.13

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Levels - School District

Directions for Calculating Indicator #11

Language Achievement - Deviation from Grade Level (LADGL) - Defined as the mean score on the language portions of achievement test administered to grades 3, 6, 9, and 12, or other grades close to these levels, converted to "months behind or ahead of grade level" for each grade, based on test norms for that grade.

Note:

1. It may be difficult to secure data on achievement tests that provide for translation of standard scores into months above or below grade level. If this data is not available it will not be possible to derive a mean level for your area.
2. Hold last year's level constant for the Current Year (CY) through Y-5.

Step 1

Record below the last school year's mean language achievement scores in months for grades 3, 6, 9, and 12, or for other preferred grades, and convert these scores to months behind or ahead of grade levels by comparing the mean score with the time the instrument was given:

Grade	Name of Instr.	Time Given	Mean Score	Months Deviation (+ or -)
3	________	______	______	__________
6	________	______	______	__________
9	________	______	______	__________
12	________	______	______	__________
Total months deviation (TMD)				__________

Step 2

Use the following formula to derive the language achievement deviation from grade level (LADGL):

TMD / 4 = LADGL

____ / 4 = _____

Step 3

Record these data on Form #102.1.

WORKSHEET #102.14

Form #102.1 - Summary of Y-1 Through Y-5 of Indicator Level - School Districts

Directions for Calculating Indicator #12

Mathematics Achievement - Deviation from Grade level (MADGL) - Defined as the mean score on the mathematics portions of achievement test administered to grades 3, 6, 9, and 12, or other grades close to these levels, converted to "months behind or ahead of grade level" for each grade, based on test norms for that grade.

Note:

1. It may be difficult to secure data on achievement tests that provide for translation of standard scores into months above or below grade level. If this data is not available it will not be possible to derive the mean level for your area.
2. Hold last year's level constant for the Current Year (CY) through Y-5.

Step 1

Record below last school year's mean mathematics achievement scores in months of grades 3, 6, 9, and 12, or other preferred grades, and convert these scores to months behind or ahead of grade level by comparing the mean score with the time the instrument was given:

Grade	Name of Instr.	Time Given	Mean Score	Months Deviation (+ or -)
3	________	______	______	__________
6	________	______	______	__________
9	________	______	______	__________
12	________	______	______	__________
Total months deviation (TMD)				__________

Step 2

Use the following formula to derive the mathematics achievement deviation from grade level (MADGL):

TMD / 4 = MADGL

____ / 4 = _____

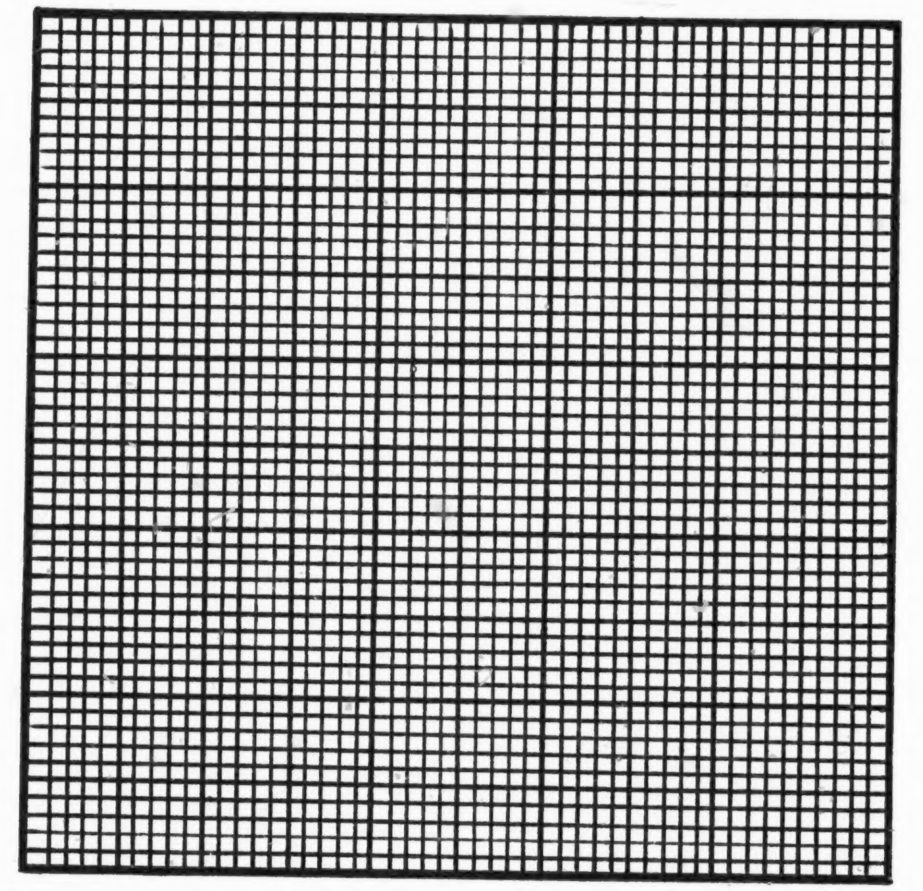
Step 3

Record these data on Form #102.1.

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	CALCULATIONS AND PROJECTIONS OF Y-1 - Y-5 INDICATOR LEVELS - SCHOOL DISTRICTS	

Educational Unit:

Indicator #	Legend: High Mean Low



	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	CALCULATIONS AND PROJECTIONS OF Y-1 - Y-5 INDICATOR LEVELS - SCHOOL DISTRICTS	
Educational Unit:		Legend: High Mean Low	

Indicator	Scale	Fiscal Year					
		CY	Y_1	Y_2	Y_3	Y_4	Y_5

Form #102.3

Form #103: Enrollment Forecast Analysis Special Instruction

1. Fill in the name of your intermediate unit or county office.
2. Date measured is September of the current year.
3. Use the following procedure to perform your calculations:
    a. Use the enrollment projections employed to develop your current budget in the Expected Enrollment Column.
    b. Use your current enrollment in the Current Enrollment Column.
    c. Record the difference (D) between the Expected Enrollment (EE) and the Current Enrollment (CE) in the Difference Column (+ or -).
    d. Calculate the percentage (PD + or -) and record in the Percentage Column.

$$(D / CE) \times 100 = PD + \text{ or } -$$

	ANALYSIS AND SUMMARIZATION	ENROLLMENT FORECAST ANALYSIS SPECIAL INSTRUCTION	

Educational Unit:

Enrollment	Date Meas.	Expected Enrollment	Current Enrollment	Difference (±)	% (+-)	Comment
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind and Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Soc. Maladj. - Elementary						
Emotionally & Soc. Maladj. - Secondary						
Brain Damaged						
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Hand. (Itin.)						
Sight Conservation (Itin.)						
Gifted - Elem. (Itin.)						
Gifted - Sec. (Itin.)						
Total						

Form #103

Form #104: New Enrollment Forecast - Special Instruction

1. Fill in the name of your intermediate unit or county office.

2. The Government Studies Center has not developed a special pupil forecasting procedure at the present time. One approach for achieving a reasonable estimate is suggested below:

   a. Use the results of the pupil population forecast procedure developed by the Government Studies Center (Form #101).

   b. Derive the ratio of special pupils for each program to the total pupil population for the Current Year (RSPTPP) by dividing the total number of special pupils in a given program (TNSPGP) by the total pupil population (TPP).

      TNSPGP / TPP = RSPTPP

   c. Multiply the TPP for each year by the RSPTPP for each program to determine the approximate number of pupils anticipated for Y-1 through Y-5 for the program (NP).

      TPP x RSPTPP = NP (Y-1 Through Y-5)

3. If this method is not suitable use another method that will yield more desirable estimates. Record the assumptions and manner in which computations are made, so that the underlying figures used can be identified. Attach this statement of assumptions and computational procedure to the forecast.

	ANALYSIS AND SUMMARIZATION	NEW ENROLLMENT FORECAST - SPECIAL INSTRUCTION	

Educational Unit:

Fiscal Year	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Sec.						
Deaf						
Blind and Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Soc. Maladj. - Elementary						
Emotionally & Soc. Maladj. - Secondary						
Brain Damaged						
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Hand. (Itin)						
Sight Conservation (Itin)						
Gifted - Elem. (Itin.)						
Gifted - Sec. (Itin.)						
Total						

Form #104

Form #105: Summary of Indicator Levels - Intermediate Unit

1. Fill in the name of your intermediate unit or county office on Form #105.

2. Fill in the names of the indicators listed and defined below on Form #105.

    a. Indicator #1.1 - Percent of Identified Special Pupils Instructed in the Intermediate Unit Area (PSPI) - Defined as the total number of special pupils instructed by the intermediate unit plus the total number of special pupils instructed by agencies other than the intermediate unit divided by the total number of potential special pupils identified or estimated in the intermediate unit area. Multiply the resulting quotient by 100.

    b. Indicator #1.2 - Ratio of Special Pupils to Classroom Teachers (RSPCT) - Defined as the total number of special pupils divided by the total number of classroom teachers.

    c. Indicator #1.3 - Percent of Possible Subprograms Offered Special Pupils (PSOSP) - Defined as the total number of subprograms offered to special pupils for the school year divided by the total number of authorized subprograms minus the total number of subprograms for which special pupils have not been identified. Multiply the resulting quotient by 100.

    d. Indicator #1.4 - Ratio of Special Pupils to Specialists and Supervisors (RSPSS) - Defined as the total number of special pupils divided by the total number of specialists and supervisors.

    e. Indicator #1.5 - Net Total Expenditures Per Special Pupil (NTESP) - Defined as the net total expenditures divided by the total number of special pupils.

    f. Indicator #1.6 - Ratio of Processed Case Load to Case Clinic Personnel (RPCLCCP) - Defined as the total number of completely processed cases divided by the total number of professional case clinic personnel responsible for processing cases.

    g. Indicator #1.7 - Number of Cases Waiting to be Processed by the Clinic (NCWPC) - Defined as the total number of cases waiting to be processed by the professional and non-professional personnel of the clinic at the end of the school year.

h. Indicator #1.8 - Ratio of Assessment Case Load to Assessment Personnel (RACLAS) - Defined as the total number of assessment cases divided by the total number of assessment personnel responsible for assessing pupils.

i. Indicator #2.1 - Ratio of School District's Professional Staff to the Intermediate Unit's Professional Staff (RSDPSIUPS) - Defined as the total number of school district professional staff, divided by the total number of intermediate unit professional staff.

j. Indicator #2.2 - Percent of Instructional Materials Requests Served by the Instructional Materials Center (PIMRS) - Defined as the total number of satisfied instructional materials requests made by school district personnel divided by the total number of instructional materials requests of school district personnel. Multiply the resulting quotient by 100.

k. Indicator #2.3 - Percent of Total Dollar Expenditures for Research and Development (PTDERD) - Defined as the total dollars expended for research and development, divided by the total dollar expenditures. Multiply the resulting quotient by 100.

l. Indicator #2.4 - Percent of Total Dollar Expenditures for Direct Service to School Districts (PTDEDSSD) - Defined as the total dollars expended for direct services to school districts, divided by the total dollar expenditures. Multiply the resulting quotient by 100.

m. Indicator #2.5 - Professional Staff Turnover Rate in Percent Per Year (PSTR) - Defined as number of professional staff separations for a given school year, divided by total professional staff budgeted for that year. Multiply the resulting quotient by 100.

n. Indicator #2.6 - Percent of Professional Staff with Masters Degrees or More (PPSMDM) - Defined as the number of professional staff at the beginning of a given school year with at least a masters degree, divided by total professional staff budgeted for that year. Multiply the resulting quotient by 100.

3. Calculate the indicators according to the steps outlined in the following worksheets:

    a. Indicator #1.1 - Worksheet #105.1
    b. Indicator #1.2 - Worksheet #105.2
    c. Indicator #1.3 - Worksheet #105.3
    d. Indicator #1.4 - Worksheet #105.4
    e. Indicator #1.5 - Worksheet #105.5
    f. Indicator #1.6 - Worksheet #105.6
    g. Indicator #1.7 - Worksheet #105.7
    h. Indicator #1.8 - Worksheet #105.8
    i. Indicator #2.1 - Worksheet #105.9
    j. Indicator #2.2 - Worksheet #105.10
    k. Indicator #2.3 - Worksheet #105.11
    l. Indicator #2.4 - Worksheet #105.12
    m. Indicator #2.5 - Worksheet #105.13
    n. Indicator #2.6 - Worksheet #105.14

4. Record the Expected and Current Levels on Form #105.

WORKSHEET #105.1

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.1

Percent of Identified Special Pupils Instructed by the Intermediate Unit Area (PSPI) - Defined as the total number of special pupils instructed by the intermediate unit (TNSPIU) plus the total number of special pupils instructed by agencies other than the intermediate unit (TNSPOA) divided by the total number of potential special pupils identified or estimated in the intermediate unit area (TNSPIA). Multiply the resulting quotient by 100.

Note:

1. If data is not available on the number of special pupils with a given problem who reside within the intermediate area, then use an estimate based on your experience. State the assumptions employed in making this estimate on a separate sheet and attach the sheet to this page. Use the same approach if data is not available on the number of special pupils being instructed by agencies other than the intermediate unit.

Step 1

Record below the anticipated (Expected Level) TNSPIU, TNSPOA, and TNSPIA that were used to determine the current budget for each subprogram:

Subprogram	TNSPIU	TNSPOA	TNSPIA
Mentally Retarded Trainable - Elementary	______	______	______
Mentally Retarded Trainable - Secondary	______	______	______
Deaf	______	______	______

Blind and Partially Sighted			
Physically Handicapped - Elementary			
Physically Handicapped - Secondary			
Mentally Retarded Educable - Elementary			
Mentally Retarded Educable - Secondary			
Gifted - Elementary			
Gifted - Secondary			
Emotionally & Socially Maladjusted - Elementary			
Emotionally & Socially Maladjusted - Secondary			
Brain Damaged			
Aphasic			
Detention Homes - Homebound			
Speech Correction (Itin.)			
Acoustically Handicapped (Itin.)			
Sight Conservation (Itin.)			
Gifted - Elementary (Itin.)			
Gifted - Secondary (Itin.)			
Total			

Step 2

Record below the actual (Current Level) TNSPIU, TNSPOA, and TNSPIA for each subprogram.

Subprogram	TNSPIU	TNSPOA	TNSPIA
Mentally Retarded Trainable - Elementary	______	______	______
Mentally Retarded Trainable - Secondary	______	______	______
Deaf	______	______	______
Blind and Partially Sighted	______	______	______
Physically Handicapped - Elementary	______	______	______
Physically Handicapped - Secondary	______	______	______
Mentally Retarded Educable - Elementary	______	______	______
Mentally Retarded Educable - Secondary	______	______	______
Gifted - Elementary	______	______	______
Gifted - Secondary	______	______	______
Emotionally & Socially Maladjusted - Elementary	______	______	______
Emotionally & Socially Maladjusted - Secondary	______	______	______
Brain Damaged	______	______	______
Aphasic	______	______	______
Detention Homes - Homebound	______	______	______
Speech Correction (Itin.)	______	______	______
Acoustically Handicapped (Itin.)	______	______	______
Sight Conservation (Itin.)	______	______	______
Gifted - Elementary (Itin.)	______	______	______
Gifted - Secondary (Itin.)	______	______	______
______________________________	______	______	______

______________________________	______	______	______
______________________________	______	______	______
Total	______	______	______

Step 3

Use the following formula to derive the Expected Level and Current Level PISPI:

	(TNSPIU	+	TNSPOA	/	TNSPIA)	x	100	=	PSPI
Expected Level	(______	+	______	/	______)	x	100	=	______
Current Level	(______	+	______	/	______)	x	100	=	______

Step 4

Record these data on Form #105.

WORKSHEET #105.2

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.2

Ratio of Special Pupils to Classroom Teachers (RSPCT) - Defined as the total number of special pupils (TNSP) divided by the total number of classroom teachers (TNCT).

Note:

1. Don't use data from the itinerant subprograms. A classroom teacher is a member of the professional staff who spends at least half-time in a regular classroom assignment.
2. Count a classroom teacher as one only if he spends 100 percent of his time in a regular classroom assignment, otherwise, count him as part of a classroom teacher; i.e., if he spends 75 percent of his time as a classroom teacher, then count him as .75 of a classroom teacher.

Step 1

Record below the anticipated (Expected Level) TNSP and TNCT that were used to determine the current budget for each subprogram.

Subprogram	TNSP	TNCT
Mentally Retarded Trainable - Elementary	____	____
Mentally Retarded Trainable - Secondary	____	____
Deaf	____	____
Blind and Partially Sighted	____	____
Physically Handicapped - Elementary	____	____

Physically Handicapped - Secondary		
Mentally Retarded Educable - Elementary		
Mentally Retarded Educable - Secondary		
Gifted - Elementary		
Gifted - Secondary		
Emotionally & Socially Maladjusted - Elementary		
Emotionally & Socially Maladjusted - Secondary		
Brain Damaged		
Aphasic		
Detention Homes - Homebound		
Speech Correction - (Itin.)		
Acoustically Handicapped (Itin.)		
Sight Conservation (Itin.)		
Gifted - Elementary (Itin.)		
Gifted - Secondary (Itin.)		
Total		

Step 2

Record below the actual (current Level) TNSP and TNCT for each subprogram:

Subprogram	TNSP	TNCT
Mentally Retarded Trainable - Elementary		
Mentally Retarded Trainable - Secondary		
Deaf		

Blind and Partially Sighted	____	____
Physically Handicapped - Elementary	____	____
Physically Handicapped - Secondary	____	____
Mentally Retarded Educable - Elementary	____	____
Mentally Retarded Educable - Secondary	____	____
Gifted - Elementary	____	____
Gifted - Secondary	____	____
Emotionally & Socially Maladjusted - Elementary	____	____
Emotionally & Socially Maladjusted - Secondary	____	____
Brain Damaged	____	____
Aphasic	____	____
Detention Homes - Homebound	____	____
Speech Correction - (Itin.)	____	____
Acoustically Handicapped (Itin.)	____	____
Sight Conservation (Itin.)	____	____
Gifted - Elementary (Itin.)	____	____
Gifted - Secondary (Itin.)	____	____
________________________________	____	____
________________________________	____	____
________________________________	____	____
Total	____	____

Step 3

Use the following formula to derive the Expected Level and Current Level RSPCT:

TNSP / TNCT = RSPCT

Expected Level ____ / ____ = _____

Current Level ____ / ____ = _____

Step 4

Record these data on Form #105.

WORKSHEET #105.3

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.3

Percent of Possible Subprograms Offered Special Pupils (PSOSP) - Defined as the total number of subprograms offered to special pupils for the school year (SOSP) divided by the total number of authorized subprograms (AS) minus the total number of subprograms for which special pupils have not been identified (SSPNI). Multiply the resulting quotient by 100.

Step 1

Record below the total anticipated (Expected Level) number of subprograms to be offered special pupils and the actual (Current Level) offered special pupils during the current school year:

Subprograms	Expected Level	Current Level
Mentally Retarded Trainable - Elementary		
Mentally Retarded Trainable - Secondary		
Deaf		
Blind and Partially Sighted		
Physically Handicapped - Elementary		
Physically Handicapped - Secondary		
Mentally Retarded Educable - Elementary		
Mentally Retarded Educable - Secondary		
Gifted - Elementary		

Gifted - Secondary	________	________
Emotionally and Socially Maladjusted - Elementary	________	________
Emotionally and Socially Maladjusted - Secondary	________	________
Brain Damaged	________	________
Aphasic	________	________
Detention Homes - Homebound	________	________
Speech Correction (Itin.)	________	________
Acoustically Handicapped (Itin.)	________	________
Sight Conservation	________	________
Gifted - Elementary (Itin.)	________	________
Gifted - Secondary (Itin.)	________	________
________________________	________	________
________________________	________	________
________________________	________	________
Total SOSP	________	________

Step 2

Record below the total number of authorized subprograms (AS) and the total number of subprograms for which special pupils have not been identified (SSPNI) anticipated for this year (Expected Level) and the actual figures (Current Level) for this year:

	Expected Level	Current Level
AS	________	________
SSPNI	________	________

Step 3

Use the following formula to derive the Expected and Current PSOSP figures:

(SOSP / AS - SSPNI) x 100 = PSOSP

Expected (_____/_____ - _____) x 100 = _____

Current (_____/_____ - _____) x 100 = _____

Step 4

Record these data on Form #105.

WORKSHEET #105.4

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.4

Ratio of Special Pupils to Specialists and Supervisors (RSPSS) - Defined as the total number of special pupils (TNSP) divided by the total nubmer of specialists and supervisors (TNSS).

Note:

1. The following specialists and supervisors are included: psychiatrist, emotionally disturbed supervisor, speech and hearing supervisor, psychological and physically handicapped supervisor, trainable supervisor, and gifted supervisor.
2. Count a specialist or supervisor as one only if he spends 100 percent of his time in practicing his specialty or supervising, otherwise, count him as part of a specialist or supervisor; i.e., if he spends 75 percent of his time as a specialist or supervisor, then count him as .75 of a specialist or supervisor.

Step 1

Record below the anticipated (Expected Level) TNSP and TNSS that were used to determine the current budget for each subprogram:

Subprogram	TNSP	TNSS
Mentally Retarded Trainable - Elementary	____	____
Mentally Retarded Trainable - Secondary	____	____
Deaf	____	____
Blind and Partially Sighted	____	____

Physically Handicapped - Elementary	____	____
Physically Handicapped - Secondary	____	____
Mentally Retarded Educable - Elementary	____	____
Mentally Retarded Educable - Secondary	____	____
Gifted - Elementary	____	____
Gifted - Secondary	____	____
Emotionally and Socially Maladjusted - Elementary	____	____
Emotionally and Socially Maladjusted - Secondary	____	____
Brain Damaged	____	____
Aphasic	____	____
Detention Homes - Homebound	____	____
Speech Correction (Itin.)	____	____
Acoustically Handicapped (Itin.)	____	____
Sight Conservation (Itin.)	____	____
Gifted - Elementary (Itin.)	____	____
Gifted - Secondary (Itin.)	____	____
____________________	____	____
____________________	____	____
____________________	____	____
Total	____	____

Step 2

Record below the actual (Current Level) TNSP and TNSS for each subprogram:

Subprogram	TNSP	TNSS
Mentally Retarded Trainable - Elementary		
Mentally Retarded Trainable - Secondary		
Deaf		
Blind and Partially Sighted		
Physically Handicapped - Elementary		
Physically Handicapped - Secondary		
Gifted - Elementary		
Gifted - Secondary		
Emotionally and Socially Maladjusted - Elementary		
Emotionally and Socially Maladjusted - Secondary		
Brain Damaged		
Aphasic		
Detention Homes - Homebound		
Speech Correction (Itin.)		
Acoustically Handicapped (Itin.)		
Sight Conservation (Itin.)		
Gifted - Elementary (Itin.)		
Gifted - Secondary (Itin.)		
Total		

Step 3

Use the following formula to derive the Expected Level and Current Level RSPSS:

TNSP / TNSS = RSPSS

Expected Level _____/ _____ = _____

Current Level _____/ _____ = _____

Step 4

Record these data on Form #105.

WORKSHEET #105.5

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.5

Net Total Expenditures Per Special Pupil (NTESP) - Defined as the net total expenditures (NTE) divided by the total number of special pupils (TNSP).

Note:

1. Subtract tuition payments to in-state and out-of-state school systems, districts, jointures, or institutions (Account Numbers 1481, 1482, 1483, 1484, 1485, 1486, 1487 and 1488) from the total expenditures figure for the General Fund to determine the NTE.

Step1

Record below the Expected Level and Current Level TNSP from Worksheet #105.4:

Expected Level TNSP__________

Current Level TNSP__________

Step 2

Record below the anticipated (Expected Level) net total expenditures (NTE) at the time the current budget was developed and the actual (Current Level) expenditures this year:

Expected Level NTE__________

Current Level NTE__________

Step 3

Use the following formula to calculate the NTESP:

NTE / TNSP = NTESP

Expected Level _____/ _____ = _____

Current Level _____/ _____ = _____

Step 4

Record these data on Form #105.

WORKSHEET #105.6

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.6

Ratio of Processed Case Load to Case Clinic Personnel (RPCLCCP) - Defined as the total number of completely processed cases (TNCPC) divided by the total number of professional case clinic personnel (TNPCCP) responsible for processing cases.

Note:

1. Professional personnel are defined as all individuals associated with and/or involved in the diagnosis and/or treatment provided by the clinic.

Step 1

Record below the anticipated (Expected Level) TNCPC and TNPCCP at the time the current budget was formulated:

TNCPC__________ TNPCCP__________

Step 2

Record below the actual (Current Level) TNCPC (the TNCPC will be an estimate based on the actual case load for last school year) and TNPCCP for this year:

TNCPC__________ TNPCCP__________

Step 3

Use the following formula to derive the Expected Level and Current Level RPCLCCP

	TNCPC	/	TNPCCP	=	RPCLCCP
Expected Level	_____	/	______	=	_______
Current Level	_____	/	______	=	_______

Step 4

Record these date on Form #105.

WORKSHEET #105.7

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.7

Number of Cases Waiting to be Processed by the Clinic (NCWPC) - Defined as the total number of cases waiting to be processed by the professional and non-professional personnel of the clinic at the end of the school year.

Note:

1. Professional and non-professional personnel of the clinic are defined as all personnel associated with and/or involved in the diagnosis and/or treatment of the clinic.

Step 1

Record below the anticipated (Expected Level) NCWPC for the end of last school year at the time this year's budget was developed and the actual (Current Level) NCWPC at the end of last school year:

	Expected Level	Current Level
NCWPC	______________	______________

Step 2

Record these data on Form #105.

WORKSHEET #105.8

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #1.8

Ratio of Assessment Case Load to Assessment Personnel (RACLAS) - Defined as the total number of assessment cases (TNAC) divided by the total number of assessment personnel (TNAP) responsible for assessing pupils.

Note:

1. Professional personnel are defined as all individuals associated with and/or involved in the assessment of pupils for entrance into or exit from special instruction subprograms or for other educational purposes.

Step 1

Record below the anticiapted (Expected Level) of TNAC and TNAP at the time the present budget was developed:

TNAC____________ TNAP____________

Step 2

Record below the actual (Current Level) TNAC for this year (the TNAC figure should be based on the actual figure at the close of last school year) and the estimated (Current Level) TNAP for this year:

TNAC____________ TNAP____________

Step 3

Use the following formula to derive the Expected Level and Current Level RACLAS:

	TNAC	/	TNAP	=	RACLAS
Expected Level	____	/	____	=	______
Current Level	____	/	____	=	______

Step 4

Record these data on Form #105.

WORKSHEET #105.9

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #2.1

Ratio of School District's Professional Staff to the Intermediate Unit's Professional Staff (RSDPSIUPS) - Defined as the total number of school district professional staff (TNSDPS) divided by the total number of intermediate unit professional staff (TNIUPS).

Note:

1. Professional staff includes classroom teachers, instructional specialists, technical specialists, and administrators.

Step 1

Record below the TNSDPS and TNIUPS anticipated (Expected Level) for this year at the time the current budget was developed:

Intermediate Unit TNIUPS____________

School District	TNSDPS

Total TNSDPS	

Step 2

Record below the actual (Current Level) TNSDPS and TNIUPS for this year:

Intermediate Unit TNIUPS____________

School District	TNSDPS
Total TNSDPS	

Step 3

Use the following formula to calculate the RSDPSIUP for the Expected Level and Current Level:

	TNSDPS	/	TNIUPS	=	RSDPSIUPS
Expected Level	______	/	______	=	_________
Current Level	______	/	______	=	_________

Step 4

Record these data on Form #105.

WORKSHEET #105.10

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #2.2

Percent of Instructional Materials Requests Served by the Instructional Materials Center (PIMRS) - Defined as the total number of satisfied instructional materials requests made by the school district professional personnal (TNIMRS) divided by the total number of instructional materials requests of school district personnel (TNIMR). Multiply the resulting quotient by 100.

Note:

1. Professional personnel includes classroom teachers, instructional specialists, technical specialists, and administrators.

Step 1

Record below the anticipated (Expected Level) TNIMRS and TNIMR for last school year at the time the current budget was being developed and the actual (Current Level) TNIMRS and TNIMR at the end of last school year:

	Expected Level	Current Level
TNIMRS		
TNIMR		

Step 2

Use the following formula to derive the Expected Level and Current Level PIMRS:

	(TNIMRS	/	TNIMR)	x	100	=	PIMRS
Expected Level	(______	/	______)	x	100	=	______
Current Level	(______	/	______)	x	100	=	______

Step 3

Record these data on Form #105.

WORKSHEET #105.11

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #2.3

Percent of Total Dollar Expenditures for Research and Development (PTDERD) - Defined as the total dollars expended for research and development (TDERD) divided by the total dollar expenditures (TDE). Multiply the resulting quotient by 100.

Note:

1. All costs associated with projects concerned with the design and development of educational methods and techniques utilized in the operation of the school district or intermediate unit.

Step 1

Record below the anticipated (Expected Level) TDERD and TDE at the time the current budget was being developed:

TDERD________________

TDE________________

Step 2

Record below the actual (Current Level) TDERD and the TDE for the current year:

TDERD________________

TDE________________

Step 3

Use the following formula to derive the Expected Level and Current Level PTDERD:

(TDERD / TDE) x 100 = PTDERD

Expected Level (_____ / ____) x 100 = ______

Current Level (_____ / ____) x 100 = ______

Step 4

Record these data on Form #105.

WORKSHEET #105.12

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #2.4

Percent of Total Dollar Expenditures for Direct Services to School Districts (PTDEDSSD) - Defined as the total dollars expended for direct services to school districts (TDEDSSD) divided by the total dollar expenditures (TDE). Multiply the resulting quotient by 100.

Note:

1. Direct services include expenditures for all services rendered directly to school districts except those involving research and development.

Step 1

Record below the anticipated (Expected Level) TDEDSSD and the TDE at the time the current budget was being developed:

TDEDSSD ________________

TDE ________________

Step 2

Record below the actual (Current Level) TDEDSSD and the TDE for the current year:

TDEDSSD ________________

TDE ________________

Step 3

Use the following formula to calculate the Expected Level and Current Level (PTDEDSSD):

(TDEDSSD / TDE) x 100 = PTDEDSSD

Expected Level (_______ / _____) x 100 = __________

Current Level (_______ / _____) x 100 = __________

Step 4

Record the data on Form #105.

WORKSHEET #105.13

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #2.5

Professional Staff Turnover Rate in Percent Per Year (PSTR) - Defined as number of professional staff separations (NPSS) for a given fiscal year divided by total professional staff budgeted for that year (TPS). Multiply the resulting quotient by 100.

Note:

1. Professional staff includes classroom teachers, instructional specialists, technical specialists, and administrators.

Step 1

Record below the anticipated (Expected Level) NPSS and TPS at the time the current budget was developed:

NPSS ________________

TPS ________________

Step 2

Record below the actual (Current Level) NPSS at the end of last year and the actual TPS for the current year:

NPSS ________________

TPS ________________

Step 3

Use the following formula for deriving the Expected Level and Current Level PSTR:

(NPSS / TPS) x 100 = PSTR

Expected Level (____ / ____) x 100 = ____

Current Level (____ / ____) x 100 = ____

Step 4

Record these data on Form #105.

WORKSHEET #105.14

Form #105 - Summary of Indicator Levels - Intermediate Unit

Directions for Calculating Indicator #2.6

Percent of Professional Staff With Master Degrees or More (PPSMDM) - Defined as the number of professional staff at the beginning of a given fiscal year with at least a masters defree (NPSMDM), divided by total professional staff budgeted for that year (TPS). Multiply the resulting quotient by 100.

Note:

1. Professional staff includes classroom teachers, instructional specialists, and administrators.

Step 1

Record below the anticipated (Expected Level) NPSMDM and TPS at the time the current budget was under development.

NPSMDM ________________

TPS ________________

Step 2

Record below the actual (Current Level) NPSMDM and TPS for this year:

NPSMDM ________________

TPS ________________

Step 3

Use the following formula to derive the Expected and Current Level PPSMDM:

	(NPSMDM	/	TPS)	x	100	=	PPSMDM
Expected Level	(_____	/	_____)	x	100	=	______
Current Level	(_____	/	_____)	x	100	=	______

Step 4

Record these data on Form #105.

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE

SUMMARY OF INDICATOR LEVELS - INTERMEDIATE UNIT

Educational Unit:

Indicator	Expected Level	Current Level	Variation	Difference(±)	Comments

Form #105

Form #106: Program and Project Crosswalk and Form #106.1: Program Crosswalk

1. Columnar paper should be used for these forms.
2. Use the following procedure for the preparation of Form #106 - Program and Project Crosswalk:
    a. The columns should be headed from left to right according to the headings listed below:
        (1) Column # 0 - Expenditure Account
        (2) Column # 1 - Policy and Executive (PE)
        (3) Column # 2 - Comprehensive Planning (CP)
        (4) Column # 3 - Information and Liaison (IL)
        (5) Column # 4 - Community Services (CS)
        (6) Column # 5 - Coordinate Support Services (CSS)
        (7) Column # 6 - Early Childhood Instruction (ECI)
        (8) Column # 7 - Elementary Instruction (EI)
        (9) Column # 8 - Secondary Instruction (SI)
        (10) Column # 9 - Vocational-Technical Instruction (VTI)
        (11) Column #10 - Special Instruction (SI)
            (a) Column #11 - Mentally Retarded Trainable - Elementary (MRTE)
            (b) Column #12 - Mentally Retarded Trainable - Secondary (MRTS)
            (c) Column #13 - Deaf (D)
            (d) Column #14 - Blind & Partially Sighted (BPS)
            (e) Column #15 - Physically Handicapped - Elementary (PHE)
            (f) Column #16 - Physically Handicapped - Secondary (PHS)
            (g) Column #17 - Mentally Retarded Educable - Elementary (MREE)
            (h) Column #18 - Mentally Retarded Educable - Secondary (MRES)
            (i) Column #19 - Gifted - Elementary (GE)
            (j) Column #20 - Gifted - Secondary (GS)
            (k) Column #21 - Emotionally & Socially Maladjusted - Elementary (ESME)
            (l) Column #22 - Emotionally & Socially Maladjusted - Secondary (ESMS)
            (m) Column #23 - Brain Damaged (BD)
            (n) Column #24 - Aphasic (A)
            (o) Column #25 - Detention Homes - Homebound (DHH)
            (p) Column #26 - Speech Correction - Itin. (SCI)
            (q) Column #27 - Acoustically Handicapped - Itin. (AHI)
            (r) Column #28 - Sight Conservation-Itin. (SCI)
            (s) Column #29 - Gifted-Elementary-Itin. (GEI)

(t) Column #30 - Gifted-Secondary-Itin. (GSI)
(12) Column #31 - Continuing Instruction (CI)
(13) Column #32 - Instructional Support Ser. (ISS)
(14) Column #33 - Nursing (N)
(15) Column #34 - Medical (M)
(16) Column #35 - Dental (D)
(17) Column #36 - Psychological (P)
(18) Column #37 - Health Support Services (HSS)
(19) Column #38 - General Services (GS)
(20) Column #39 - Pupil Transportation (PT)
(21) Column #40 - Food Services (FS)
(22) Column #41 - Facilities (F)
(23) Column #42 - Fixed Charges (FC)
(24) Column #43 - Business Support Services (BSS)
(25) Column #44 - Head these columns by the title of the operations or capital improvement projects currently underway. An example of an operations project is an Elementary or Secondary Education Title III project. A new building under construction is an example of a capital improvement project.

b. The lines in Column #0 are headed by the General Fund Expenditure Account numbers 0111 through 1488 as recommended in the Manual of Accounting and Related Financial Procedures for Pennsylvania School Systems(2). Only use those accounts shown in your current year's budgets. See Appendix B for account numbers.

c. Use the following approach in translating your current year's budgeted figures by account into the appropriate programs used in the classification system employed in the PPBS procedure. (All project costs and Special Instruction subprogram costs remain under the project and subprogram.):

(1) Record your data on Worksheet #106.1. The expenditures for each account number must be broken into Salary (S), Non-Salary (NS), and Capital Outlay (CO), and Debt Service (DS) by program and project.

(2) Use Table 2 to determine the relationship of accounts to programs. This table has been prepared from the materials in the Appendix. Please note that the salary of the superintendent, assistant superintendents, adminsitrative assistants and assistant

superintendent in charge of business may be prorated over several programs. Make a list of all personnel and the amount or percent of their salaries that has been prorated to each program and project. Use an extra copy of Worksheet #106.1 for this task. Record the Expenditure Account Number and source of revenue for the expenditure in the designated columns. Use the following letters to designate the source of revenue:

(a) Federal - F

(b) State - S

(c) School District - SD

(d) County Commissioners - CC

(e) Foundation - FD

d. Transfer the information from Worksheet #106.1 to Form #106.

3. Use the following procedure to assist you in completing Form #106.1 - Program Crosswalk:

a. The columns are headed as follows:

(1) Column # 0 - Programs and Projects
(2) Column # 1 - Policy and Executive (PE)
(3) Column # 2 - Comprehensive Planning (CP)
(4) Column # 3 - Information and Liaison (IL)
(5) Column # 4 - Community Services (CS)
(6) Column # 5 - Coordinate Support Services (CSS)
(7) Column # 6 - Early Childhood Instruction (ECI)
(8) Column # 7 - Elementary Instruction (EI)
(9) Column # 8 - Secondary Instruction (SI)
(10) Column # 9 - Vocational-Technical Instruction (VTI)
(11) Column #10 - Special Instruction (SI)
(12) Column #11 - Continuing Instruction (CI)
(13) Column #12 - Instructional Support Ser. (ISS)
(14) Column #13 - Nursing (N)
(15) Column #14 - Medical (M)
(16) Column #15 - Dental (D)
(17) Column #16 - Psychological (P)
(18) Column #17 - Health Support Services (HSS)
(19) Column #18 - General Services (GS)
(20) Column #19 - Pupil Transportation (PT)
(21) Column #20 - Food Services (FS)
(22) Column #21 - Facilities (F)
(23) Column #23 - Fixed Charges (FC)

(24) Column #24 - Business Support Servides (BSS)

b. The lines in Column #0 are headed by the column headings on Form #106.

c. The purpose of this crosswalk is to enable you to group all intermediate unit expenditures for both programs and projects by the twenty-three programs listed in the Appendix.

d. All expenditures for projects must be gouped under the appropriate programs. Use another copy of Worksheet #106.1 to assist in making these transfers.

4. The expenditures by account numbers are allocated to programs and projects on Form #106. The project and subprogram expenditures are merged into programs on Form #106.1. The crosswalks provide a convenient basis for generating deaggregated and aggregated Base Case, Adjusted Base Case, and Final Base Case reports. The deaggregated or program-project expenditure projection reports are useful for analysis and planning at the staff level. The aggregated or program expenditure projection reports provide useful tools for conveying an understandable picture of the intermediate unit's expenditures over a five-year planning horizon to the board and public.

TABLE 2

RELATIONSHIP OF EXPENDITURE ACCOUNT
TO PPBS PROGRAM CLASSIFICATION

Program / Exp. Account Number	Coord.Program Area					Instructional Pro. Area							Health Pro. Area					Business Program Area					
	PE	CP	IL	C	CSS	ECI	EI	SI	VTI	SI	CI	ISS	N	M	D	P	HSS	GS	PT	FS	F	FC	BSS
0111	x																						
0112																							
Supt.	x	x	x																				
Asst.Supt.'s	x	x	x		x							x					x						x
Admn. Asst.		x	x																x				
Clerical					x																		
Sick Leave					x																		
0113																							
Asst. Supt.	x	x	x																				x
Clerical																							x
0114					x																		
0115																		x					
0121					x							x					x						x
0131					x																		
0124					x																		
0125																							x
0134					x																		
0135																		x					
0151																		x					
0154					x																		
0153																		x					
0159					x																		
0211												x											
0212												x											
0213						x	x	x	x	x	x	(According to Program)											
Sick Leave												x											
0214												x											
Sick Leave												x											
0216												x											
0218												x											
0219												x											
0221						x	x	x	x	x	x	(According to Program)											
0222						x	x	x	x	x	x	(According to Program)											
0223												x											
0224												x											
0229												x											
0231												x											
0239												x											
0250												x											
0311												x											
0312												x											
0313												x				x							

Program / Exp. Account Number	Coord.Program Area					Instructional Pro. Area							Health Pro. Area					Business Program Area					
	PE	CP	IL	CS	CSS	ECI	EII	SI	VTI	SII	CI	ISS	N	M	D	P	HSS	GS	PT	FS	F	FC	BS
0319												x					x						
0320												x					x						
0330												x					x						
0350												x				x							
0411													x	x	x	x	x	(According to Pro.)					
0412														x		x							
0413													x										
0414															x								
0415													x				x						
0416													x	x	x	x	x	(According to Pro.)					
0418																	x						
0419																	x						
0421															x								
0422														x									
0431															x								
0432														x			x						
0433														x	x		x						
0445																	x						
0451															x(or)		x						
0452														x	(or)		x						
0453																	x						
0511																			x				
0512												x							x				
0513																			x				
0519					x														x				
0521																			x				
0523																			x				
0529																			x				
0531																			x				
0532																			x				
0533																			x				
0539																			x				
0546																			x				
0551																			x				
0553																			x				
0555																			x				
0556																			x				
0557																			x				
0611																					x		
0612																					x		
0619																					x		
0621																					x		
0622																					x		
0631																					x		
0639																					x		
0641																					x		
0642																					x		
0643												x											
0644					x												x						x
0650																						x	

Table 2

Program / Exp. Account Number	Coord. Program Area					Instructional Pro. Area							Health Pro. Area					Business Program Area					
	PE	CP	IL	CS	CSS	ECI	EI	SII	VTI	SI	CI	ISS	N	M	D	P	HSS	GS	PT	FS	F	FC	BSS
0831																						x	
0832																						x	
0833																						x	
0834																						x	
0835																						x	
0836																						x	
0837																						x	
0838																					x		
0839																						x	
0961																				x			
0962																				x			
1010												x											
1020												x											
1030												x											
1040												x											
1048												x											
1050												x											
1063												x											
1110				x																			
1120				x																			
1130				x																			
1149				x																			
1150				x																			
1241																					x		
1242																					x		
1243												x											
1244				x													x						x
1245																	x						
1246																			x				
1247																				x			
1248												x											
1249				x																			
1265																					x		
1266																					x		
1371																					x		
1372																		x					
1373																		x					
1374																		x					
1375																		x					
1379																		x					
1481									x														
1482						x	x	x	x	x	(According to Program)												
1483						x	x	x	x	x	(According to Program)												
1484										x													
1485										x													
1486						x	x	x	x	x	(According to Program)												
1487								x															
1488									x														

Table 2

Page 3 of 3

WORKSHEET #106.1

Forms #106 and #106.1 - Program and Project Crosswalk

Program or Project	Acct. No.	Source of Revenue	Salary	Non-Salary	Capital Outlay	Debt Service	Total

Form #107: **Base Case - Program and Project Summary and**
Form #107.1: **Base Case - Program Summary**

1. Fill in the name of your intermediate unit or county office on both forms.

2. Enter the total dollars for each program and project from Form #106 in the Current Year Column on Form #107.

3. Enter the total dollars for each program from Form #106.1 in the Current Year Column on Form #107.1.

4. Project the Salary (S), Non-Salary (NS), Capital Outlay (CO), Debt Service (DS), and Total (T) figures for each program and project from Y-1 through Y-5 according to the rules in this section. Record the projections on Worksheet #107.1.

   a. Policy and Executive

      (1) Salary - Multiply the Current Year's (CY) Salary (S) figure by a compounded inflation rate for Y-1 through Y-5 (see Table 1). Before you choose a compound inflation rate examine the salary increases for your intermediate unit or county office over the past three to five years.

      (2) Non-Salary - Multiply the CY Non-Salary (NS) figure by a compounded inflation rate for Y-1 through Y-5 (see Table 1). Before you choose a compound inflation rate examine the non-salary increases for your intermediate unit or county office over the past three to five years.

      (3) Capital Outlay - Don't project beyond the first year encountered unless you have established a predetermined schedule of capital outlay. If you have a schedule, record the expenditure for each year from Y-1 thourgh Y-5.

      (4) Debt Service - Project on the bases of the known schedule. If this information is not available project the CY figure as a constant figure from Y-1 through Y-5.

   b. Comprehensive Planning, Information and Liaison, Community Services, Coordinative Support Services, Early Childhood Instruction, Secondary

Instruction, Vocational-Technical Instruction, Continuing Instruction, Instructional Support Services, Nursing, Medical, Dental, Psychological, Health Support, Services, General Services, Food Services, and Business Support Services.

(1) Salary - Multiply the Current Year's Salary (S) figure by a compounded inflation rate for Y-1 through Y-5 (see Table 1). Before you choose a compound inflation rate examine the salary increases for your intermediate unit or county office over the past three to five years.

(2) Non-Salary - Multiply the CY Non-Salary (NS) figure by a compounded inflation rate for Y-1 through Y-5 (see Table 1). Before you choose a compound inflation rate examine the non-salary increases for your intermediate unit or county office over the past three to five years.

(3) Capital Outlay - Don't project the Capital Outlay (CO) beyond the first year encountered.

(4) Debt Service - Project on the basis of the known schedule. If this information is not available project the CY figure as a constant figure from Y-1 through Y-5.

c. Special Instruction (All subprograms)

(1) Salary - The Current Year's Salary (S) figure for each subprogram should be increased by a compound inflation rate for Y-1 through Y-5 (see Table 1). Before you choose a compound inflation rate examine the salary increases for your intermediate unit or county office over the past three to five years.

(2) Non-Salary - Multiply the CY Non-Salary (NS) figure for each subprogram by a compounded inflation rate for Y-1 through Y-5 (see Table 1). Before you choose a compound inflation rate examine the non-salary increases for your intermediate unit or county office over the past three to five years.

(3) Capital Outlay - Don't project beyond the first year encountered unless you have established a predetermined plan of capital

outlay. If you have a plan, record the expenditure for each year from Y-1 through Y-5.

(4) Debt Service - Project on the basis of the known shcedule. If this information is not available project the CY figure as a constatn figure from Y-1 through Y-5.

d. Pupil Transportation

(1) Salary - Use the same procedure as outlined under Policy and Executive.

(2) Non-Salary - Use the same procedure as outlined under Policy and Executive. You may hold the CY insurance expenditure figures constant for Y-1 through Y-5.

(3) Capital Outlay - Use the same procedure as outlined under Policy and Executive.

(4) Non-Salary Use the same procedure as outlined under Policy and Executive.

e. Facilities

(1) Salary - Use the same procedure as outlined under Policy and Executive.

(2) Non-Salary - Use the same procedure as outlined under Policy and Executive. You may hold the CY telephone expenditures constant for Y-1 through Y-5.

(3) Capital Outlay - Use the same procedure as outlined under Policy and Executive.

(4) Non-Salary - Use the same procedure as outlined under Policy and Executive.

f. Fixed Charges

(1) Salary -

(a) Include figures for the following expenditures: intermediate unit's contribution to employees retirement, social security, workmen's compensation insurance, and employee insurance (Expenditure Account Numbers 0831, 0832, 0833 and 0834).

(b) Calculate the percent of the total fixed charge salary cost (PTFCSC) to the total salary (TS) for all programs for CY by dividing the total fixed charge salary cost (TFCSC) by TS, and multiply the resulting quotient by 100.

$$(TFCSC / TS) \times 100 = PTFCSC$$

(c) Use this percent to calculate the salary (S) costs for Y-1 through Y-5.

$$TS \times PTFCSC = S \text{ (Y-1 through Y-5)}$$

(d) Record these data on Worksheet #107.1.

(2) Non-Salary - Hold the CY figures (Expenditure Account Numbers 0835, 0836, 0837, and 0839) constant for Y-1 through Y-5.

(3) Capital Outlay - Follow the same procedure as outlined under Policy and executive.

g. Projects (Capital and Operations)

(1) If this is the first time you have used the PPBS Procedure and you are not presently operating projects skip to Section 6. However, if you used the procedure last year to generate a five-year plan or you are operating projects, even though you are using the procedure for the first time, continue on with the directions.

(2) Use the actual cost figures for all projects that are funded on a fixed budget basis over a multi-year period. Federal and foundation projects fit into this category. Be sure all costs related to fixed budget projects are projected on the basis of the project budget and are terminated in accordance with the project schedule.

(3) Give each project a specific name.

(4) Salary - Record the actual salary figures for each year a fixed budget is scheduled to operate. If the project is not a fixed budget project record the CY Salary (S) costs and inflate these costs from Y-1 through Y-5 at a compounded inflation rate (see Table 1).

Use the same rate as the one used for the Policy and Executive Program.

(5) Non-Salary - If the project is a fixed budget project record the actual Non-Salary (NS) expenditures for the life of the project from Y-1 through Y-5. Inflate the CY NS figure by the same compounded inflation that was used for the Policy and executitve Program if the project is not on a fixed budget.

(6) Capital Outlay - Only record the actual figures for each year a fixed budget project is to operate. Project Capital Outlay for other projects on the basis of the established expenditure schedule. If a schedule doesn't exist, don't project beyond the first year encountered.

(7) Debt Service - Project both fixed budget and non-fixed budget projects on the basis of the known schedule. If this information is not available project the CY figure as a constant figure from Y-1 through Y-5.

5. Transfer the total costs from the master copy of Worksheet #107.1 for each year by program and project to the appropriate cell on Form #107. Don't add in the capital improvement project(s) costs when you total the years from CY through Y-5. Capital improvement project(s) costs for CY through Y-5 are reflected in the Final Base Case (Form #114).

6. Calculate and project the Salary (S), Non-Salary (NS), Capital Outlay (CO), and Debt Service (DS) for each program from CY through Y-5. Use a second copy of Worksheet #107.1 to record your calculations and projections. Start by recording the total dollars for each program from Form #106.1 in the Current Year Column opposite T (Total). Merge the S, NS, CO, and DS for each project with the programs under which the project will fall. The total of S, NS, CO, and DS for each program should equal the total for each program taken from Form #106.1. Continue to merge for Y-1 through Y-5.

7. The purpose of the calculations for the Base Case shown on Form #107 are to show the effects of inflation upon expenditures over the next five years for each program and project. Increases or decreases in pupil enrollment and capital improvement costs have been ignored in thse projections.

8. The totals on Form #107.1 include the CY through Y-5 capital improvement project(s) costs and, therefore, reflect the impact of inflation and added cost because of capital improvement for the next five years. If you haven't used the PPBS Procedure before you will not develop capital improvement project(s) until later in the procedure; therefore, Form #107 and Form #107.1 will look exactly the same.

WORKSHEET #107.1

Forms #107 and #107.1 - Base Case - Program and Project Summary

Program	Cat.	Fiscal Year					
		Current Year ____	Y 1 ____	Y 2 ____	Y 3 ____	Y 4 ____	Y 5 ____
Coordinative Pro. Area Policy & Executive	S						
	NS						
	CO						
	DS						
	T						
Comprehensive Planning	S						
	NS						
	CO						
	DS						
	T						
Information and Liaison	S						
	NS						
	CO						
	DS						
	T						
Community Services	S						
	NS						
	CO						
	DS						
	T						
Coordinative Supp. Services	S						
	NS						
	CO						
	DS						
	T						
Instructional Pro. Area Early Childhood Instr.	S						
	NS						
	CO						
	DS						
	T						
Elementary Instr.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Secondary Instr.	S						
	NS						
	CO						
	DS						
	T						
Voc-Tech. Instr.	S						
	NS						
	CO						
	DS						
	T						
Special Instruction Mentally Retarded Trainable - Ele.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Trainable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Deaf	S						
	NS						
	CO						
	DS						
	T						
Blind and Partially Sighted	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Ele.	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Sec.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Educable - Ele.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Mentally Retarded Educable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Gifted - Elementary	S						
	NS						
	CO						
	DS						
	T						
Gifted - Secondary	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Ele.	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Sec.	S						
	NS						
	CO						
	DS						
	T						
Brain Damaged	S						
	NS						
	CO						
	DS						
	T						
Aphasic	S						
	NS						
	CO						
	DS						
	T						
Detention Homes - Homebound	S						
	NS						
	CO						
	DS						
	T						

Worksheet #107.1

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Speech Correction (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Acoustically Hand. (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Sight Conservation (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Ele. (Itin)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Sec. (Itin)	S						
	NS						
	CO						
	DS						
	T						
Continuing Instr.	S						
	NS						
	CO						
	DS						
	T						
Instructional Supp. Services	S						
	NS						
	CO						
	DS						
	T						
Health Program Area Nursing	S						
	NS						
	CO						
	DS						
	T						

Worksheet #107.1

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Medical	S						
	NS						
	CO						
	DS						
	T						
Dental	S						
	NS						
	CO						
	DS						
	T						
Psychological	S						
	NS						
	CO						
	DS						
	T						
Health Support Ser.	S						
	NS						
	CO						
	DS						
	T						
Business Program Area General Services	S						
	NS						
	CO						
	DS						
	T						
Pupil Transportation	S						
	NS						
	CO						
	DS						
	T						
Food Services	S						
	NS						
	CO						
	DS						
	T						
Facilities	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Fixed Charges	S						
	NS						
	CO						
	DS						
	T						
Business Support Services	S						
	NS						
	CO						
	DS						
	T						

Worksheet #107.1 Page 6 of 7

Project	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
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	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	BASE CASE - PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable -Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

Form #107

Page 1 of 3

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	BASE CASE - PROGRAM AND PROJECT SUMMARY	

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #107

Page 2 of 3

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	BASE CASE - PROGRAM AND PROJECT SUMMARY	

Educational Unit:

Fiscal Year / Project	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Project Total Annual Cost						
Program and Project Total Annual Cost						
Capital Improvement Project(s) Total Annual Cost						
Adjusted Program and Project(s) Total Annual cost						

Form #107

Page 3 of 3

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE

BASE CASE - PROGRAM SUMMARY

Educational Unit:

Fiscal Year Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehansive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Inst						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	BASE CASE - PROGRAM SUMMARY

Educational Unit:

Program \ Fiscal Year	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #107.1

Page 2 of 2

Form #108: Calculations and Projections of Indicators for Base Cases - Detailed and
Form #108.1: Calculations and Projections of Indicators for Base Cases - Summary

1. Forms #108 and #108.1 have been provided for you to record the levels of each indicator. You can plot a single indicator on Form #108 or plot all indicators on Form #108.1. A finer scale can be used with Form #108 than with Form #108.1. Form #108 is useful in studying a single indicator. Form #108.1 enables you to see the gross trends of all indicators at one glance.

2. The indicators must be projected from the Current Year (CY) through Y-5 for the Base Case (BC), Adjusted Base Case (ABC) and Final Base Case (FBC). The projections of the indicators are completed after each base case has been calculated. The projections of several of the indicators will show the effects of inflation, increasing and decreasing enrollments, and capital improvements on expenditures, personnel, and space. Each Final Base Case graph should show three projections. The CY level has already been calculated and recorded on Form #105. The Y-1 through Y-5 projections are derived according to the steps outlined on the worksheets listed below - record the levels for each indicator on Worksheet #108.15:

    a. Indicator #1.1 - Worksheet #108.1
    b. Indicator #1.2 - Worksheet #108.2
    c. Indicator #1.3 - Worksheet #108.3
    d. Indicator #1.4 - Worksheet #108.4
    e. Indicator #1.5 - Worksheet #108.5
    f. Indicator #1.6 - Worksheet #108.6
    g. Indicator #1.7 - Worksheet #108.7
    h. Indicator #1.8 - Worksheet #108.8
    i. Indicator #2.1 - Worksheet #108.9
    j. Indicator #2.2 - Worksheet #108.10
    k. Indicator #2.3 - Worksheet #108.11
    l. Indicator #2.4 - Worksheet #108.12
    m. Indicator #2.5 - Worksheet #108.13
    n. Indicator #2.6 - Worksheet #108.14

3. Plot the indicator levels for the Base Case, Adjusted Base Case, and Final Base Case on Forms #108 and #108.1.

WORKSHEET #108.1

Forms #108 and #108.1: Calculations and Projections of Indicators for Base Case - Detailed and Summary

Directions for Calculating Indicator #1.1

Percent of Identified Special Pupils Instructed by the Intermediate Unit (PSPI) - Defined as the total number of special pupils instructed by the intermediate unit (TNSPIU) plus the total number of special pupils instructed by agencies other than the intermediate unit (TNSPOA) divided by the total number of potential special pupils identified or estimated in the intermediate unit area (TNSPIA). Multiply the resulting quotient by 100.

Note:

1. Only refer to the notes that are relevant to the case you are plotting.
2. If data is not available on the number of special pupils with a given problem who reside within the intermediate unit area, then use an estimate based on your experience. Use the same approach if data is not available on the number of special pupils being instructed by agencies other than the intermediate unit.
3. Base Case, Adjusted Base Case, and Final Base Case - The number of special pupils will increase depending on the special pupil forecast shown on Form #104 and the estimates over the next five years of special pupils taught by other agencies.
4. CY or Current Level has been calculated on Worksheet #105.1.

Step 1

Record below the TNSPIU, TNSPOA, and TNSPIA for each subprogram from Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable-Elementary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Mentally Retarded Trainable-Secondary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Deaf					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Blind and Partially Sighted					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Physically Handicapped-Elem.					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Physically Handicapped-Sec.					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Mentally Retarded Educable-Elementary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

Mentally Retarded Educable-Secondary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Gifted - Elementary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Gifted - Secondary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Emotionally & Socially Maladjusted - Elementary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Emotionally & Socially Maladjusted - Secondary					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Brain Damaged					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Aphasic					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Detention Homes - Homebound					
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

Speech Correction (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

Acoustically Handicapped (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

Sight Conservation (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

Gifted - Elementary (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

Gifted - Secondary

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

____

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

____

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

____

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___
Total TNSPIU	___	___	___	___	___
Total TNSPOA	___	___	___	___	___
Total TNSPIA	___	___	___	___	___

Step 2

Use the following formula to calculate the PSPI for Y-1 through Y-5:

(TNSPI + TNSPOA / TNSPIA) x 100 = PSPI
Y-1 (_____ + _______ / _____) x 100 = ____
Y-2 (_____ + _______ / _____) x 100 = ____
Y-3 (_____ + _______ / _____) x 100 = ____
Y-4 (_____ + _______ / _____) x 100 = ____
Y-5 (_____ + _______ / _____) x 100 = ____

Step 3

Record these data on Worksheet #108.15.

WORKSHEET #108.2

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #1.2

Ratio of Special Pupils to Classroom Teachers (RSPCT) - Defined as the total number of special pupils (TNSP) divided by the total number of classroom teachers (TNCT).

Note:

1. Only refer to the notes that are relevant to the case you are plotting.
2. Don't use data from the itinerant subprograms. A classroom teacher is a member of the professional staff who spends at least half-time in a regular classroom assignment.
3. Count a classroom teacher as one only if he spends 100 percent of his time in a regular classroom assignment, otherwise, count him as part of a classroom teacher; i.e., if he spends 75 percent of his time as a classroom teacher, then count him as .75 of a classroom teacher.
4. Base Case - The total number of classroom teachers remains constant from CY through Y-5. The total enrollment will increase or decrease in accordance with the enrollment projections shown on Form #104.
5. Adjusted Base Case and Final Base Case - The total number of classroom teachers will increase or decrease as the enrollment increases or decreases.
6. CY or Current Level has been calculated on Worksheet #105.2.

Step 1

Record below the TNSP and TNCT for each subprogram for Y-1 through Y-5:

Subprogram	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable - Elementary					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Mentally Retarded Trainable - Secondary					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Deaf					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Blind and Partially Sighted					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Physically Handicapped-Elem.					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Physically Handicapped-Sec.					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Mentally Retarded Educable - Elementary					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Mentally Retarded Educable - Secondary					
TNSP	____	____	____	____	____
TNCT	____	____	____	____	____

Gifted - Elementary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Gifted - Secondary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Emotionally & Socially Maladjusted - Elementary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Emotionally & Socially Maladjusted - Secondary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Brain Damaged					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Aphasic					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Detention Homes - Homebound					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
______________________					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
______________________					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___

____

TNSP	____	____	____	____	____
TNCT	____	____	____	____	____
Total TNSP	____	____	____	____	____
Total TNCT	____	____	____	____	____

Step 2

Use the following formula to derive the Y-1 through Y-5 RSPCT:

TNSP / TNCT = RSPCT

Y-1 ____ / ____ = ____
Y-2 ____ / ____ = ____
Y-3 ____ / ____ = ____
Y-4 ____ / ____ = ____
Y-5 ____ / ____ = ____

Step 3

Record these data on Worksheet #108.15.

WORKSHEET #108.3

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #1.3

Percent of Possible Subprograms Offered Special Pupils (PSOSP) - Defined as the total number of subprograms offered to special pupils for the school year (SOSP) divided by the total number of authorized subprograms (AS) minus the total number of subprograms for which special pupils have not been identified (SSPNI). Multiply the resulting quotient by 100.

Note:

1. Only refer to the notes that are relevant to the case you are plotting.
2. Base Case and Adjusted Base Case - Assume that the SOSP, AS, and SSPNI figures will remain constant from CY through Y-5.
3. Final Base Case - The SOSP figure may be altered because of a capital improvement project. This change must be reflected in the indicator level. If this condition does not occur then the SOSP, AS, and SSPNI figures will remain constant from CY through Y-5.
4. CY or Current Level has been calculated on Worksheet #105.3.

Step 1

Record below the SOSP and SSPNI for each subprogram from Y-1 through Y-5:

Subprogram	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable - Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Mentally Retarded Trainable - Secondary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Deaf					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Blind and Partially Sighted					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Physically Handicapped-Elem.					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Physically Handicapped-Sec.					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Mentally Retarded Educable - Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Mentally Retarded Educable - Secondary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Gifted - Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___

Gifted - Secondary

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Emotionally & Socially Maladjusted - Elementary

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Emotionally & Socially Maladjusted - Secondary

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Brain Damaged

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Aphasic

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Detention Homes - Homebound

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Speech Correction (Itin.)

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Acoustically Handicapped (Itin.)

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Sight Conservation (Itin.)

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Gifted - Elementary (Itin.)

SOSP ____ ____ ____ ____ ____
SSPNI ____ ____ ____ ____ ____

Gifted - Secondary (Itin.)					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
______________________________					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
______________________________					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
______________________________					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Total SOSP	___	___	___	___	___
Total SSPNI	___	___	___	___	___

Step 2

Record below the total AS figures for Y-1 through Y-5:

AS

Y-1 ________________

Y-2 ________________

Y-3 ________________

Y-4 ________________

Y-5 ________________

Step 3

Use the following formula to derive the PSOSP for Y-1 through Y-5:

(SOSP / AS - SSPNI) x 100 = PSOSP

Y-1 (_____ / _____ - ______) x 100 = _____

Y-2 (_____ / _____ - ______) x 100 = _____

Y-3 (_____ / _____ - ______) x 100 = _____

Y-4 (_____ / _____ - ______) x 100 = _____

Y-5 (_____ / _____ - ______) x 100 = _____

Step 4

Record these data on Worksheet #108.15.

WORKSHEET #108.4

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #1.4

Ratio of Special Pupils to Specialists and Supervisors (RSPSS) - Defined as the total number of special pupils (TNSP) divided by the total number of specialists and supervisors (TNSS).

Note:

1. Only refer to the notes that are relevant to the case you are plotting.
2. The following specialists and supervisors are included: psychiatrist, emotionally disturbed supervisor, speech and hearing supervisor, psychological and physically handicapped supervisor, trainable supervisor, and gifted supervisor.
3. Count a specialist as one only if he spends 100 percent of his time in practicing his specialty or supervising, otherwise, count him as part of a specialist or supervisor; i.e., if he spends 75 percent of his time as a specialist or supervisor, then count him as .75 of a specialist or supervisor.
4. Base Case and Adjusted Base Case - The total number of specialists and supervisors figure employed to calculate the CY level remains constant for Y-1 through Y-5. The same enrollment figures used in Indicator #1.2 are also used here.
5. Final Base Case - An increase in the number of specialists and supervisors, because of capital improvement projects shown on Form #110, will cause a change in the indicator levels. The enrollment figures are the same as those used for the Base Case and Adjusted Base Case.
6. CY or Current Level has been calculated on Worksheet #105.4.

Step 1

Record below the TNSP and TNSS for each subprogram for Y-1 through Y-5:

Subprogram	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable - Elementary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Mentally Retarded Trainable - Secondary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Deaf					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Blind and Partially Sighted					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Physically Handicapped-Elem.					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Physically Handicapped-Sec.					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Mentally Retarded Educable - Elementary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Mentally Retarded Educable - Secondary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___

Gifted - Elementary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Gifted - Secondary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Emotionally & Socially Maladjusted - Elementary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Emotionally & Socially Maladjusted - Secondary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Brain Damaged					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Aphasic					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Detention Homes - Homebound					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Speech Correction (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Acoustically Handicapped (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Sight Conservation (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___

Gifted - Elementary (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Gifted - Secondary (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
________________________					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
________________________					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
________________________					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Total TNSP	___	___	___	___	___
Total TNSS	___	___	___	___	___

Step 3

Use the following formula to derive the Y-1 through Y-5 RSPSS:

	TNSP	/	TNSS	=	RSPSS
Y-1	_____	/	_____	=	_____
Y-2	_____	/	_____	=	_____
Y-3	_____	/	_____	=	_____
Y-4	_____	/	_____	=	_____
Y-5	_____	/	_____	=	_____

Step 4

Record these data on Worksheet #108.15.

WORKSHEET #108.5

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #1.5

Net Total Expenditures Per Special Pupil (NTESP) - Defined as the net total expenditures (NTE) divided by the total number of special pupils (TNSP).

Note:

1. Only refer to the notes that are relevant to the case you are plotting.
2. Subtract tuition payments to in-state and out-of-state school systems, districts, jointures, or institutions (Account Numbers 1481, 1482, 1483, 1484, 1485, 1486, 1487 and 1488) from the total expenditures figure for the General Fund to determine the NTE.
3. Base Case - Use the data shown on Worksheet #107.1 and the enrollment figures on Form #104.
4. Adjusted Base Case - Use the data shown on Worksheet #109.6 and enrollment data on Form #104.
5. Final Base Case - Use the data shown on Form #114 or Worksheet #114.1 and the enrollment data on Form #104.
6. The CY or Current Level has been calculated on Worksheet #105.5.

Step 1

Record below the NTE and TNSP for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
NTE	___	___	___	___	___
TNSP	___	___	___	___	___

Step 2

Calculate the NTESP by using the following formula:

	NTE	/	TNSP	=	NTESP
Y-1	_____	/	_____	=	_____
Y-2	_____	/	_____	=	_____
Y-3	_____	/	_____	=	_____
Y-4	_____	/	_____	=	_____
Y-5	_____	/	_____	=	_____

Step 3

Record these data on Worksheet #108.15.

WORKSHEET #108.6

Froms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #1.6

Ratio of Processed Case Load to Case Clinic Personnel (RPCLCCP) - Defined as the total number of completely processed cases (TNCPC) divided by the total number of professional case clinic personnel (TNPCCP) responsible for processing cases.

Note:

1. Only refer to the notes that are relevant to the case you are plotting.
2. Professional personnel are defined as all individuals associated with and/or involved in the diagnosis and/or treatment provided by the clinic.
3. Base Case - The CY level will remain constant through Y-5.
4. Adjusted Base Case and Final Base Case - The increase or decrease in total pupil population reflected on Form #101 will influence this indicator. Capital improvement project(s) may add to the professional personnel. If this occurs the Final Base Case levels will be altered.
5. The CY or Current Level has been calculated on Worksheet #105.6.

Step 1

Record below the total school district enrollment (TE) for CY through Y-5 shown on Form #101:

	Y-1	Y-2	Y-3	Y-4	Y-5
TE	___	___	___	___	___

Step 2

Record below the total number of completely processed cases (TNCPC) of the clinic (Current Level) from Worksheet #105.6:

TNCPC ______________

Step 3

Calculate the ratio of TE to TNCPC (RTETNCPC) for CY by using the following formula:

TE / TNCPC = RTETNCPC

____ / ____ = ________

Step 4

Divide the TE for Y-1 through Y-5 by the RTETNCPC to calculate the TNCPC for each year:

	TE	/	RTETNCPC	=	TNCPC
Y-1	____	/	________	=	_____
Y-2	____	/	________	=	_____
Y-3	____	/	________	=	_____
Y-4	____	/	________	=	_____
Y-5	____	/	________	=	_____

Step 5

Record below the CY or Current Level TNPCCP from Worksheet #105.6:

TNPCCP ______________

Step 6

If a capital improvement project(s) increases the TNPCCP this increase should be shown below:

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNPCCP	____				
Y-1	Increase	+____				
Y-1	TNPCCP	____	____			
Y-2	Increase		+____			
Y-2	TNPCCP		____	____		
Y-3	Increase			+____		
Y-3	TNPCCP			____	____	
Y-4	Increase				+____	
Y-4	TNPCCP				____	____
Y-5	Increase					+____
Y-5	TNPCCP					____

Step 7

Calculate the Y-1 through Y-5 RPCLCCP by using the following formula:

TNCPC / TNPCCP = RPCLCCP

Y-1 ____ / ____ = ____

Y-2 ____ / ____ = ____

Y-3 ____ / ____ = ____

Y-4 ____ / ____ = ____

Y-5 ____ / ____ = ____

Step 8

Record these data on Worksheet #108.15.

WORKSHEET #108.7

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #1.7

Number of Cases Waiting to be Processed by the Clinic (NCWPC) - Defined as the total number of cases waiting to be processed by the professional and non-professional personnel of the clinic at the end of the school year.

Note:

1. Professional and non-professional personnel of the clinic are defined as all personnel associated with and/or involved in the diagnosis and/or treatment by the clinic.
2. Base Case - the CY level will remain constant through Y-5.
3. Adjusted Base Case and Final Base Case - The increase or decrease in school district enrollment reflected on Form #101 will influence this indicator.
4. The CY or Current Level has been calculated on Worksheet #105.7.

Step 1

Record below the total school district enrollment (TE) for CY through Y-5 shown on Form #101.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
TE	___	___	___	___	___	___

Step 2

Record below the CY or Current Level NCWPC from Worksheet #105.7:

NCWPC ______________

Step 3

Calculate the ratio of TE to NCWPC (RTENCWPC) for CY by using the following formula:

TE	/	NCWPC	=	RTENCWPC
____	/	_____	=	________

Step 4

Divide the TE by the RTENCWPC for each year from Y-1 through Y-5 to calculate the NCWPC:

	TE	/	RTENCWPC	=	NCWPC
Y-1	____	/	________	=	_____
Y-2	____	/	________	=	_____
Y-3	____	/	________	=	_____
Y-4	____	/	________	=	_____
Y-5	____	/	________	=	_____

Step 5

Record these data on Worksheet #108.15.

WORKSHEET #108.8

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #1.8

Ratio of Assessment Case Load to Assessment Personnel (RACLAS) - Defined as the total number of assessment cases divided by the total number of assessment personnel (TNAP) responsible for assessing pupils.

Note:

1. Only refer to the notes that are relevant to the case you are plotting.
2. Professional personnel are defined as all individuals associated with and/or involved in the assessment of pupils for entrance into or exit from special instruction subprograms or for other educational purposes.
3. Base Case - The CY level will remain constant through Y-5.
4. Adjusted Base Case and Final Base Case - The increase or decrease in total pupil population reflected on Form #101 will influence this indicator. Capital improvement project(s) may add to the professional personnel. If this occurs the Final Base Case levels will be altered.
5. The CY or Current Level has been calculated on Worksheet #105.8.

Step 1

Record below the total school district enrollment (TE) for CY through Y-5 shown on Form #101:

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
TE	___	___	___	___	___	___

Step 2

Record below the CY or Current TNAC from Worksheet #105.8:

TNAC________________

Step 3

Calculate the ratio of TE to TNAC (RTETNAC) for CY by using the following formula:

TE	/	TNAC	=	RTETNAC
____	/	____	=	________

Step 4

Divide the TE for Y-1 through Y-5 by RTETNAC to calculate the TNAC for each year:

	TE	/	RTETNAC	=	TNAC
Y-1	____	/	________	=	_______
Y-2	____	/	________	=	_______
Y-3	____	/	________	=	_______
Y-4	____	/	________	=	_______
Y-5	____	/	________	=	_______

Step 5

Record below the CY or Current Level TNAP from Worksheet #105.8:

TNAP ________________

Step 6

If a capital improvement project(s) increase the TNAP this increase should be shown below:

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNAP	___				
Y-1	Increase	+___				
Y-1	TNAP	___	___			
Y-2	Increase		+___			
Y-2	TNAP		___	___		
Y-3	Increase			+___		
Y-3	TNAP			___	___	
Y-4	Increase				+___	
Y-4	TNAP				___	___
Y-5	Increase					+___
Y-5	TNAP					___

Step 7

Calculate the Y-1 through Y-5 RACLLAS by using the following formula:

TNAC / TNAP = RACLLAS

Y-1 ____ / ____ = __________

Y-2 ____ / ____ = __________

Y-3 ____ / ____ = __________

Y-4 ____ / ____ = __________

Y-5 ____ / ____ = __________

Step 8

Record these data on Worksheet #108.15.

WORKSHEET #108.9

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #2.1

Ratio of School District's Professional Staff to the Intermediate Unit's Professional Staff (RSDPSIUPS) - Defined as the total number of school district professional staff (TNSDPS) divided by the total number of intermediate unit professional staff (TNIUPS).

Note:

1. Professional staff includes classroom teachers, instructional specialists, technical specialists, and administrators.
2. Base Case - The CY or Current Level will remain constant through Y-5.
3. Adjusted Base Case and Final Base Case - The increase or decrease in total school district pupil population and special pupil population reflected in Forms #101 and #104 will influence this indicator. Capital improvement project(s) may add to the professional personnel of the intermediate unit. If this occurs the Final Base Case levels wll be altered. Increases of professional personnel at the school district level because of capital improvement must be disregarded unless precise figures are available.
4. The CY level has been calculated on Worksheet #105.9.

Step 1

Record below the weighted pupil enrollment - staff (WPE-S) for CY through Y-5 from Form #101:

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
WPE-S	___	___	___	___	___	___

Step 2

Record below the TNSDPS figure for the Current Level from Worksheet #105.9:

TNSDPS ______________

Step 3

Calculate the ratio of WPE-S to TNSDPS (RPPS) for CY by using the following formula:

WPE-S / TNSDPS = RPPS

____ / ______ = ____

Step 4

Divide the WPE-S for Y-1 through Y-5 by the RPPS to determine the TNSDPS for each year:

	WPE-S	/	RPPS	=	TNSDPS
Y-1	_____	/	____	=	______
Y-2	_____	/	____	=	______
Y-3	_____	/	____	=	______
Y-4	_____	/	____	=	______
Y-5	_____	/	____	=	______

Step 5

It may be necessary to alter the TNSDPS figures for Y-1 through Y-5 if specific information is available on added professional staff because of capital improvement project(s). Add these figures below:

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNSDPS	___				
Y-1	Added	+___				
Y-1	TNSDPS	___	___			
Y-2	Added		+___			
Y-2	TNSDPS		___	___		
Y-3	Added			+___		
Y-3	TNSDPS			___	___	
Y-4	Added				+___	
Y-4	TNSDPS				___	___
Y-5	Added					+___
Y-5	TNSDPS					___

Step 6

Record below the total number of special pupil classroom teachers (TNCT) and total number of specialists and supervisors (TNSS) for Y-1 through Y-5 from Worksheets #108.2 and #108.4 and take the CY figure for all other intermediate unit professional personnel (AOPS) and hold it constant from Y-1 through Y-5. Add these figures together to derive the TNIUPS for each year.

	Y-1	Y-2	Y-3	Y-4	Y-5
TNCT	___	___	___	___	___
TNSS	___	___	___	___	___
CY-AOPS	___	___	___	___	___
TNIUPS	___	___	___	___	___

Step 7

If capital improvement project(s) add to the AOPS figures for Y-1 through Y-5 these additions must be taken into account when calculating the Final Base Case. Show these increases below. The additions to the TNCT and TNSS figures have been calculated for the Final Base Case on Worksheets #108.2 and #108.4.

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNIUPS	___	___	___	___	___
Y-1	Added	+___				
Y-1	TNIUPS	___	___			
Y-2	Added		+___			
Y-2	TNIUPS		___	___		
Y-3	Added			+___		
Y-3	TNIUPS			___	___	
Y-4	Added				+___	
Y-4	TNIUPS				___	___
Y-5	Added					+___
Y-5	TNIUPS					___

Step 8

Calculate the RSDPSIUPS for Y-1 through Y-5 by using the following formula:

	TNSDPS	/	TNIUPS	=	RSDPSIUPS
Y-1	______	/	______	=	__________
Y-2	______	/	______	=	__________
Y-3	______	/	______	=	__________
Y-4	______	/	______	=	__________
Y-5	______	/	______	=	__________

Step 9

Record these date on Worksheet #108.15.

WORKSHEET #108.10

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #2.2

Percent of Instructional Materials Request Served by the Instructional Materials Center (PIMRS) - Defined as the total number of satisfied instructional materials requests made by the school district professional personnel (TNIMRS) divided by the total number of instructional materials requests of school district personnel (TNIMR). Multiply the resulting quotient by 100.

Note:

1. Professional personnel includes classroom teachers, instructional specialists, technical specialists, and administrators.
2. The CY or Current Level will be held constant through Y-5 for all base cases.

Step 1

Record below the CY or Current Level PIMRS from Worksheet #105.15 and hold it constant through Y-5:

PIMRS ______________

Step 2

Record this datum on Worksheet #108.15.

WORKSHEET #108.11

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #2.3

Percent of Total Dollar Expenditures for Research and Development (PTDERD) - Defined as the total dollars expended for research and development (TDERD) divided by the total dollar expenditures (TDE). Multiply the resulting quotient by 100.

Note:

1. All costs associated with projects concerned with the design and development of educational methods and techniques utilized in the operation of the school district or intermediate unit.
2. Base Case - Use the data shown on Worksheet #107.1.
3. Adjusted Base Case - Use the data shown on Worksheet #109.6.
4. Final Base Case - Use the data shown on Form #114 or Worksheet #114.1.
5. The CY or Current Level has been calculated on Worksheet #105.11.

Step 1

Record below the TDERD and TDE figure for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
TDERD	___	___	___	___	___
TDE	___	___	___	___	___

Step 2

Use the following formula to derive the Y-1 through Y-5 PTDERD figures:

	(TDERD	/	TDE)	x	100	=	PTDERD
Y-1	(_____	/	____)	x	100	=	______
Y-2	(_____	/	____)	x	100	=	______
Y-3	(_____	/	____)	x	100	=	______
Y-4	(_____	/	____)	x	100	=	______
Y-5	(_____	/	____)	x	100	=	______

Step 3

Record these data on Worksheet #108.15.

WORKSHEET #108.12

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #2.4

Percent of Total Dollar Expenditures for Direct Services to School Districts (PTDEDSSD) - Defined as the total dollars expended for direct services to school districts (TDEDSSD) divided by the total dollar expenditures (TDE). Multiply the resulting quotient by 100.

Note:

1. Direct services include expenditures for all services rendered directly to school districts except those involving research and development.
2. Base Case - Use the data shown on Worksheet #107.1.
3. Adjusted Base Case - Use the data shown on Worksheet #109.6.
4. Final Base Case - Use the data shown on Form #114 or Worksheet #114.1.
5. The CY or Current Level has been calculated on Worksheet Worksheet #105.2.

Step 1

Record below the TDEDSSD and TDE figures for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
TDEDSSD					
TDE					

Step 2

Use the following formula to derive the Y-1 through Y-5 PTDESSD figures:

(TDEDSSD / TDE) x 100 = PTDEDSSD

Y-1 (_______ / _____) x 100 = ________

Y-2 (_______ / _____) x 100 = ________

Y-3 (_______ / _____) x 100 = ________

Y-4 (_______ / _____) x 100 = ________

Y-5 (_______ / _____) x 100 = ________

Step 3

Record these data on Worksheet #108.15.

WORKSHEET #108.13

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #2.5

Professional Staff Turnover Rate in Percent Per Year (PSTR) - Defined as number of professional staff separations (NPSS) for a given fiscal year divided by total professional staff budgeted for that year (TPS). Multiply the resulting quotient by 100.

Note:

1. Professional staff includes classroom teachers, instructional specialists, technical specialists, and administrators.
2. The CY or Current Level on Worksheet #105.13 will remain constant through Y-5 for all base cases.

Step 1

Record the CY or Current Level PSTR below and hold it constant through Y-5:

PSTR ______________

Step 2

Record these data on Worksheet #108.15.

WORKSHEET #108.14

Forms #108 and #108.1 - Calculations and Projections of Indicators for Base Cases - Detail and Summary

Directions for Calculating Indicator #2.6

Percent of Professional Staff With Masters Degree or More (PPSMDM) - Defined as the number of professional staff at the beginning of a given fiscal year with at least a masters degree (NPSMDM), divided by total professional staff budgeted for that year (TPS). Multiply the resulting quotient by 100.

Note:

1. Professional staff include classroom teachers, instructional specialists, and administrators.
2. The CY or Current Level on Worksheet #105.14 will remain constant through Y-5 for all base cases.

Step 1

Record the CY or Current Level PPSMDM below and hold constant through Y-5:

PPSMDM _______________

Step 2

Record these data on Worksheet #108.15.

WORKSHEET #108.15

Forms #108 and #108.1 - Calculations and Projections of Indicators

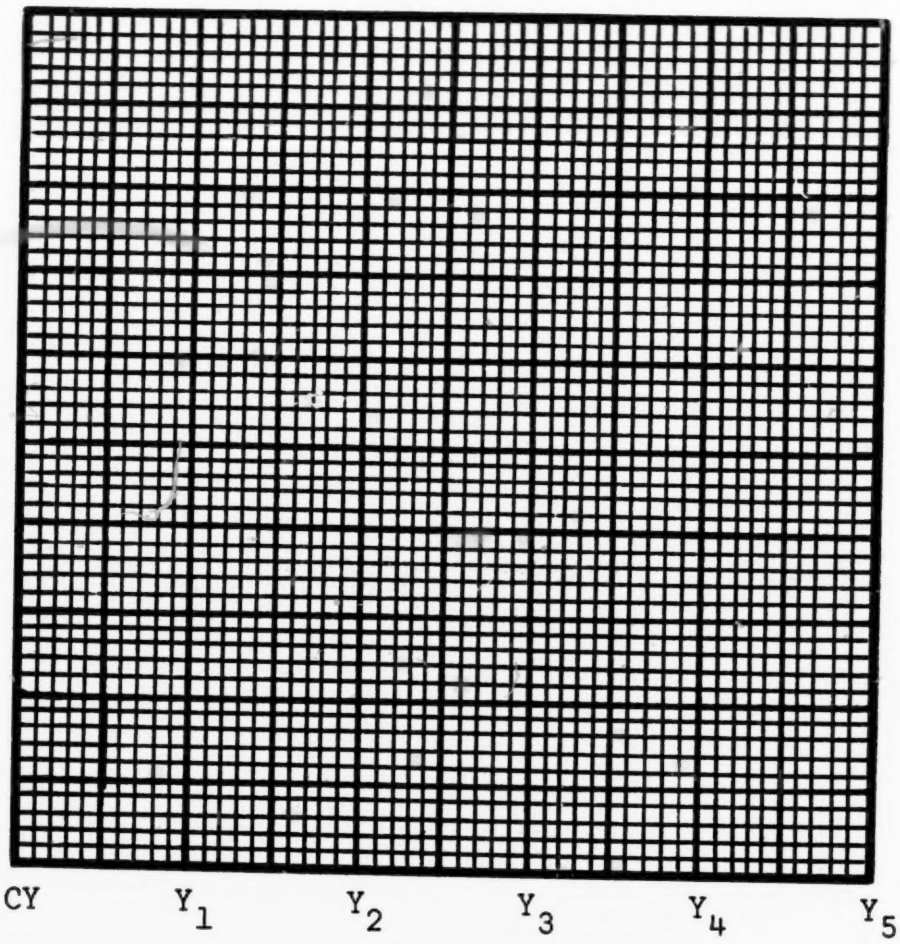
For Base Cases - Detail and Summary

Indicator	Fiscal Year					
	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	CALCULATIONS AND PROJECTIONS OF INDICATORS FOR BASE CASES - **DETAIL**	

Educational Unit:

Indicator:	Legend: BC ABC FBC



Form #108

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	CALCULATIONS AND PROJECTIONS FOR BASE CASES - SUMMARY
Educational Unit:	Legend: BC ABC FBC

Indicator	Scale	Fiscal Year					
		CY	Y_1	Y_2	Y_3	Y_4	Y_5

Form #108.1

Form #109: Adjusted Base Case - Program and Project Summary and Form #109.1: Adjusted Base Case - Program Summary

1. Fill in the name of your intermediate unit or county office on both forms.

2. Enter the total dollars for each program and project from Form #106 in the Current Year Column on Form #109.

3. Enter the total dollars for each program from Form #106.1 in the Current Year Column on Form #109.1.

4. Project the Salary (S), Non-Salary (NS), Capital Outlay (CO), Debt Service (DS), and Total (T) for each program and project for Y-1 through Y-5 according to the procedures set forth in this section. Costs on all subprograms should be recorded on separate worksheets. Worksheet #109.6 has been provided to assist you in recording costs.

    a. Policy and Executive, Comprehensive Planning, Information and Liaison, Community Services, Coordinative Support Services, Early Childhood Instruction, Elementary Instruction, Secondary Instruction, Vocational-Technical Instruction, and Continuing Instruction.

        (1) Salary - Copy the figures from Worksheet #107.1.

        (2) Non-Salary Copy the figures from Worksheet #107.1.

        (3) Capital Outlay - Copy the figures from Worksheet #107.1.

        (4) Debt Service - Copy the figures from Worksheet #107.1.

    b. Special Instruction -

        (1) Salary -

            (a) Use Worksheet #109.1 for your calculations.

            (b) Record these data on Worksheet #109.6.

        (2) Non-Salary -

(a) Use Worksheet #109.1 for these Calculations.

(b) Record these data on Worksheet #109.6.

(3) Debt Service - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

c. Instruction Support Services -

(1) Salary -

(a) Use Worksheet #109.2 for your calculations.

(b) Record these data on Worksheet #109.6.

(2) Non-Salary -

(a) Use Worksheets #109.2 and #109.3 for your calculations.

(b) Record these data on Worksheet #109.6.

(3) Capital Outlay -

(a) Use Worksheets #109.2 and #109.3 for your calculations.

(b) Record these data on Worksheet #109.6.

(4) Debt Service - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

d. Nursing - Copy the figures for Y-1 through Y-5 from Worksheet #107.1 for Salary, Non-Salary, Capital Outlay, and Debt Service.

e. Medical and Dental -

(1) Salary - The salary cost is zero unless a full time doctor or dentist has been hired.

(2) Non-Salary -

(a) Use Worksheet #109.4 for your calculations.

(b) Record these data on Worksheet #109.6.

(3) Capital Outlay - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

(4) Debt Service - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

f. Psychological -

(1) Salary - Use Steps 1 through 4 on Worksheet #109.2 in performing your calculations.

(2) Non-Salary - Use Steps 5 through 7 on Worksheet #109.2 in performing your calculations.

(3) Capital Outlay - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

(4) Debt Service - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

g. General Services, Facilities, and Business Support Services - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

h. Pupil Transportation

(1) Salary -

(a) Use Worksheet #109.5 for your calculations.

(b) Record these data on Worksheet #109.6.

(2) Non-Salary -

(a) Use Worksheet #109.5 for your calculations.

(b) Record these data on Worksheet #109.6.

(3) Capital Outlay -

(a) Use Worksheet #109.5 for your calculations.

(b) Record these data on Worksheet #109.6.

(4) Debt Service - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

i. Food Services

(1) Salary - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

(2) Non-Salary -

(a) Use Worksheet #109.4 for your calculations.

(b) Record these data on Worksheet #109.6.

(3) Capital Outlay - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

(4) Debt Service - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

j. Fixed Charges

(1) Salary -

(a) Include figures for the following expenditures: intermediate unit's contribution to employees retirement, social security, workmen's compensation insurance, and employee insurance (Expenditure Account Numbers 0831, 0832, 0833 and 0834).

(b) Calculate the percent of the total fixed charge salary cost (PTFCSC) to the total salary (TS) for all programs for CY by dividing the total fixed charge salary cost (TFCSC) by TS and multiply the resulting quotient by 100.

$$(\mathrm{TFCSC} / \mathrm{TS}) \times 100 = \mathrm{PTFCSC}$$

(c) Use this percent to calculate the salary (S) costs for Y-1 through Y-5.

$$\mathrm{TS} \times \mathrm{PTFCSC} = \mathrm{S} \text{ (Y-1 through Y-5)}$$

(d) Record these data on Worksheet #109.

(2) Non-Salary - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

(3) Capital Outlay - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

(4) Debt Service - Copy the figures for Y-1 through Y-5 from Worksheet #107.1.

m. Projects (Capital and Operations)

(1) All projects must be named.

(2) Costs for a given project must not be projected beyond the life of project. Use the actual cost figures for all projects that are funded on a fixed budget basis over a multi-year period. Federal and foundation projects fit into this category. Be sure all costs related to fixed budget projects are projected on the basis of the project budget and are terminated in accordance with the project schedule.

(3) Salary - Use the figures developed last year for a project for each year the project is to operate or be monitored. Record the parameter values (compound inflation rates, pupil-personnel ratios, etc.) used to calcualte these costs in the space below the project title and opposite S. If it is necessary to recalculate these costs because of revised forecasts then record the new parameter values in the appropriate space.

(4) Non-Salary - Follow the same procedure outlined under salary above.

(5) Capital Outlay - Don't project the capital (CO) beyond the first year encountered unless a definite capital outlay schedule has been established for the project. If the last year's figures have been altered because of changed parameter values, record these changes in the appropriate space.

(6) Debt Service - Project debt service (DS) on the basis of the known schedule. If this information is not available project the CY figure as a constant figure for Y-1 through Y-5.

5. Transfer totals from Worksheet #109.6 for each year by program to the appropriate cell on Form #109.1. Don't add the capital improvement project(s) costs when you total the years from Y-1 through Y-5, because capital improvement project(s) costs from Y-1 through Y-5 are reflected in the Final Base Case (Form #114).

6. Calculate the Salary (S), Non-Salary (NS), Capital Outlay (CO), and Debt Service (DS) for each program for the Current Year (CY). Enter the total dollars for each program from Form #106.1 in the Current Year

Column opposite T (Total) on a second copy of Worksheet #109.6.

7. Project the S, NS, CO, DS, and T figures for each program from Y-1 through Y-5 according to the rules outlined under Section 4 above and record these data on Worksheet #109.6.

8. Transfer the total for each year by program from Worksheet #109.6 to the appropriate cell on Form #109.1. Capital improvement project(s) costs are reflected in the grand totals on this form.

9. The purpose of the calculations for the Adjusted Base Case on Form #109 is to show the combined effects of inflation and increased or decreased enrollments on expenditures over the next five years for each program and project. The grand totals on Form #109 should exclude the capital improvement project(s) costs for Y-1 through Y-5. The effects of increased costs because of capital improvements will be shown on Form #114.

10. Project expenditures are merged into program expenditures on Form #109.1. The grand totals on this form include the Y-1 through Y-5 capital improvement project(s) costs and, as a result, show the effects over a five year period on each program of inflation, increasing or decreasing enrollment and added cost of capital improvement project(s).

11. Calculate the Adjusted Base Case Indicator Levels by using worksheets #108.1 through #108.15. Record all plots on Form #108 and #108.1.

WORKSHEET #109.1

Form #109 - Adjusted Base Case - Program and Project Summary

Directions for Calculating Salary (S), Non-Salary (NS), and Capital Outlay (CO) for Each Subprogram Under Special Instruction

Step 1

Record below the estimated special pupil enrollment (SPE) for CY through Y-5 for the subprogram from Form #104:

Subprogram	CY	Y-1	Y-2	Y-3	Y-4	Y-5
__________	___	___	___	___	___	___

Step 2

Calculate the number of teachers required (NTR) for the subprogram by using the present mean number of pupils per teacher Divide this class size figure (CS) into the SPE for Y-1 through Y-5 to calculate the NTR for each year.

SPE / CS = NTR

Y-1 ___ / ___ = ___

Y-2 ___ / ___ = ___

Y-3 ___ / ___ = ___

Y-4 ___ / ___ = ___

Y-5 ___ / ___ = ___

Step 3

Calculate the number of new teachers required (NNT) for the subprogram from Y-1 through Y-5 by subtracting the NTR of the previous year from the NTR for the year to be calculated. The result could be zero or a negative number; in which case, no new teachers will be required for the program except replacements for anticipated teacher turnovers.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY to Y-5 NTR	____	____	____	____	____	____
CY NTR		-____				
Y-1 NNT		____				
Y-1 NTR			-____			
Y-2 NNT			____			
Y-2 NTR				-____		
Y-3 NNT				____		
Y-3 NTR					-____	
Y-4 NNT					____	
Y-4 NTR						-____
Y-5 NNT						____

Step 4

Record below the Current Level professional staff turnover rate (PSTR) from Worksheet #105.13:

PSTR ________________

Step 5

Calculate the number of teacher turnovers (NTT) for the subprogram from Y-1 through Y-5 by multiplying the NTR of the previous year by the PSTR to arrive at the figure for the year being calculated.

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	NTR	___				
	PSTR	x___				
Y-1	NTT	___				
Y-1	NTR		___			
	PSTR		x___			
Y-2	NTT		___			
Y-2	NTR			___		
	PSTR			x___		
Y-3	NTT			___		
Y-3	NTR				___	
	PSTR				x___	
Y-4	NTT				___	
Y-4	NTR					___
	PSTR					x___
Y-5	NTT					___

Step 6

Calculate the number of teachers to be hired (NTH) for the subprogram for Y-1 through Y-5 by adding the NNT to the NTT for each year.

	Y-1	Y-2	Y-3	Y-4	Y-5
NNT	___	___	___	___	___
NTT	+___	+___	+___	+___	+___
NTH	___	___	___	___	___

Step 7

Calculate the mean CY salary for teachers presently on staff (MST)

MST ______________

Step 8

Calculate the Y-1 through Y-5 mean salary for teachers in the subprogram. The CY MST should be increased each year by the same compound inflation rate (CIR) used to calculate the Base Case salary costs for the subprogram.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	MST	___	___	___	___	___	___
	CIR		x___	x___	x___	x___	x___
	MST	___	___	___	___	___	___

Step 9

Calculate the salary (S) cost for the subprogram for Y-1 through Y-5 by multiplying the MST by the NTR for each year.

	Y-1	Y-2	Y-3	Y-4	Y-5
MST	___	___	___	___	___
NTR	x___	x___	x___	x___	x___
S	___	___	___	___	___

Step 10

Record these data on Worksheet #109.6.

Step 11

Calculate the number of classes by using the mean CY class size (MCS). Divide the class size (MCS) into the special pupil enrollment SPE for Y-1 through Y-5 to determine the number of required classes (NRC).

SPE / MCS = NRC

Y-1 ___ / ___ = ___

Y-2 ___ / ___ = ___

Y-3 ___ / ___ = ___

Y-4 ___ / ___ = ___

Y-5 ___ / ___ = ___

Step 12

Calculate the number of new classes (NNC) for each year from Y-1 through Y-5 by subtracting the previous year's NRC from the year being calculated. The result could be zero or a negative number. If this situation occurs the NRC will remain at the level of the previous year.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
	NRC	___	___	___	___	___	___
CY	NRC		-___				
Y-1	NNC		___				
Y-1	NRC			-___			
Y-2	NNC			___			
Y-2	NRC				-___		
Y-3	NNC				___		
Y-3	NRC					-___	
Y-4	NNC					___	
Y-4	NRC						-___
Y-5	NNC						___

Step 13

Calculate the number of continuing classes (NCC) by subtracting the NNC from the NRC for Y-1 through Y-5.

	Y-1	Y-2	Y-3	Y-4	Y-5
NRC	___	___	___	___	___
NNC	-___	-___	-___	-___	-___
NCC	___	___	___	___	___

Step 14

Calculate the mean CY non-salary (MNS) costs for each class in the subprogram this year.

MNS ________________

Step 15

Calcualte the Y-1 through Y-5 MNS. The MNS should be increased each year by the same compound inflation rate (CIR) used to calcualte the Base Case non-salary costs for the subprogram.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	MNS	___	___	___	___	___	___
	CIR		___	___	___	___	___
	MNS	___	___	___	___	___	___

Step 16

Calculate the total non-salary (TNS) costs for each year by multiplying the MNS by the NRC. Expenses for textbooks and supplies absolutely necessary for classroom or case load use represent NS costs. Any expenses above these should be calculated under Instructional Support Services Program.

	Y-1	Y-2	Y-3	Y-4	Y-5
MNS	___	___	___	___	___
NRC	___	___	___	___	___
TNS	___	___	___	___	___

Step 17

Record these data on Worksheet #109.6.

Step 18

If certain types of equipment must be purchased for each new class (Capital Outlay) then calculate the CY mean new equipment costs (MNEC).

MNEC ________________

Step 19

Calculate the Y-1 through Y-5 MNEC. The MNEC should be increased each year by a compound inflation rate (CIR) selected from Table 1. The selection of this rate should be based on three to five years of past experience in the purchase of equipment in your intermediate unit or county office. Record the assumptions you made in selecting the CIR on a separate sheet of paper and attach the sheet to this page.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	MNEC	___	___	___	___	___	___
	CIR		x___	x___	x___	x___	x___
	MNEC	___	___	___	___	___	___

Step 20

Calculate the total capital outlay (CO) for Y-1 through Y-5 by multiplying the MNEC by the NNC.

	Y-1	Y-2	Y-3	Y-4	Y-5
MNEC	___	___	___	___	___
NNC	x___	x___	x___	x___	x___
TCO	___	___	___	___	___

Step 21

Record these data opposite Capital Outlay (CO) for Y-1 through Y-5 on Worksheet #109.6.

WORKSHEET #109.2

Form #109 - Adjusted Base Case - Program and Project Summary

Directions for Calculating Salary (S), Non-Salary (NS), Capital Outlay (CO), Instructional Support Services and Psychological Programs - Special Instruction Related

Step 1

Record below the number of new (NNC), number of continuing classes (NCC) and number of required classes (NRC) from Worksheet #109.1 for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
NNC	___	___	___	___	___
NCC	___	___	___	___	___
NRC	___	___	___	___	___

Step 2

If specialists or supervisors are going to be added because of the new classes being added from Y-1 through Y-5 list the type and the number during each year that are to be added.

Position	Y-1	Y-2	Y-3	Y-4	Y-5
________	___	___	___	___	___

Step 3

Record below the mean salary (MS) for CY for the position:

MS ______________

Step 4

Calculate the MS for Y-1 through Y-5 by multiplying the MS by a compound inflation rate (CIR) selected from Table 1. Select the same rate used to calculate the salary costs in the Base Case for the subprogram.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	MS	___	___	___	___	___	___
	CIR		x___	x___	x___	x___	x___
	MS	___	___	___	___	___	___

Step 5

Calculate the total additional salary costs (TASC) for the total number of new specialists or supervisors (TNSS) from Y-1 through Y-5 by multiplying the MS by the TNSS.

	Y-1	Y-2	Y-3	Y-4	Y-5
MS	___	___	___	___	___
TNSS	x___	x___	x___	x___	x___
TASC	___	___	___	___	___

Step 6

Calculate the total salary cost (TSC) for Y-1 through Y-5 by adding the TASC to the Base Case salary costs (BCSC).

	Y-1	Y-2	Y-3	Y-4	Y-5
BCSC	___	___	___	___	___
TAC	+___	+___	+___	+___	+___
TSC	___	___	___	___	___

Step 7

If materials and supplies beyond those required to run the classes are to be added, calculate the CY mean equipment costs (MEC) and record below:

MEC ______________

Step 8

Calculate the MEC for Y-1 through Y-5 by multiplying the CY MEC by a compound inflation rate selected from Table 1. Choose the rate on the basis of the increases over the last three to five years. Record the basis for selecting the rate on a separate sheet of paper and attach the sheet to this page.

		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	MEC	___	___	___	___	___	___
	CIR		x___	x___	x___	x___	x___
	MEC	___	___	___	___	___	___

Step 9

If materials and supplies beyond those required to run the classes are to be added, calculate the additional non-salary costs (ANSC) by multiplying the MEC by the NRC figures for Y-1 through Y-5.

	Y-1	Y-2	Y-3	Y-4	Y-5
MEC	___	___	___	___	___
NRC	x___	x___	x___	x___	x___
ANSC	___	___	___	___	___

Step 10

Add the ANSC figures to the Base Case non-salary (BCNS) figures for Y-1 through Y-5 to derive the total cost (TNSC) for the subprogram.

	Y-1	Y-2	Y-3	Y-4	Y-5
BCNS	___	___	___	___	___
ANSC	+___	+___	+___	+___	+___
TNSC	___	___	___	___	___

Step 11

Record these data on Worksheet #109.6.

Step 12

If the addition of specialists or supervisors for the subprogram requires the purchase of certain types of equipment, calculate the CY mean equipment cost (MEC) and record below:

MEC ________________

Step 13

Calculate the MEC for Y-1 through Y-5 by multiplying the CY MEC by a compound inflation rate (CIR). Choose an inflation ratio from Table 1 based on examination of costs over the past three to five years. Record the basis for making this judgement on a separate sheet and attach the sheet to this page.

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	MEC	___	___	___	___	___
	CIR	x___	x___	x___	x___	x___
	MEC	___	___	___	___	___

Step 14

If the addition of specialists or supervisors for the subprogram requires the purchase of certain types of equipment or additional capital outlay (ACO), multiply the MEC by the number of specialists or supervisors (NSSA) being added for Y-1 through Y-5.

	Y-1	Y-2	Y-3	Y-4	Y-5
MEC	___	___	___	___	___
NSSA	x___	x___	x___	x___	x___
ACO	___	___	___	___	___

Step 15

Calculate the total capital outlay (TCO) for Y-1 through Y-5 by adding the Base Case capital outlay (BCCO) to the ACO.

	Y-1	Y-2	Y-3	Y-4	Y-5
BCCO	___	___	___	___	___
ACO	+___	+___	+___	+___	+___
TCO	___	___	___	___	___

Step 16

Record these data in the Capital Outlay (CO) row for Y-1 through Y-5 on Worksheet #109.6.

WORKSHEET #109.3

Form #109 - Adjusted Base Case - Program and Project Summary

Directions for Calculating Non-Salary (NS) for Instructional Support Services not Related to Special Instruction

Step 1

Record below the total school district enrollment (SDE) for CY through Y-5 from Form #101:

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
SDE	___	___	___	___	___	___

Step 2

Record below the total classroom teachers (TCT) for CY through Y-5 from Worksheet #102.4:

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
TCT	___	___	___	___	___	___

Step 3

Record below the total number of instructional specialists (TNIS) for CY through Y-5 from Worksheet #102.6:

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
TNIS	___	___	___	___	___	___

Step 4

If Non-Salary (NS) costs are influenced by an increase or decrease in SDE, TCT, or TNIS calculate the NS cost per pupil, per classroom teacher, or per instructional specialist for the Current Year (CY) by dividing the NS costs related to the specific Instructional Support Service Subprogram by the SDE, TCT, or TNIS figure.

NS / SDE = NS Per Pupil

____ / ____ = ____

NS / TCT = NS Per Classroom Teacher

____ / ____ = ____

NS / TNIS = NS Per Instructional Specialist

____ / ____ = ____

Step 5

Increase the CY NS, SDE, TCT, or TNIS costs per individual by a compound inflation rate (CIR) which is consistent with past experience (see Table 1). Record the basis for this judgement on a separate sheet of paper and attach to this page.

Type of NS Cost		CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY	NS	___	___	___	___	___	___
	CIR		x___	x___	x___	x___	x___
	NS	___	___	___	___	___	___

Step 6

Derive the total NS costs per year by multiplying the SDE, TCT, or TNIS NS costs calculated in Step 5 for Y-1 through Y-5 by the SDE, TCT, or TNIS figure.

	Y-1	Y-2	Y-3	Y-4	Y-5
NS Costs (SDE,TCT, or TNIS)	___	___	___	___	___
(SDE,TCT, or TNIS figure)	x___	x___	x___	x___	x___
Total NS Costs	___	___	___	___	___

Step 7

Transfer these data to Worksheet #109.6.

WORKSHEET #109.4

Form #109 - Adjusted Base Case - Program and Project Summary

Directions for Calculating the Non-Salary (NS) Costs for Medical, Dental, and Food Services Programs - Special Pupil Related

Step 1

Record below the total special enrollment (SPE) from CY through Y-5 from Form #104.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
SPE	___	___	___	___	___	___

Step 2

Record below the NS costs for CY and calculate the mean cost per pupil (MCPP) by dividing the NS by the SPE:

NS / SPE = MCPP

___ / ___ = ____

Step 3

Inflate the CY MCPP by a compound inflation rate (CIR) from Y-1 through Y-5 (see Table 1). Record the basis for selecting the rate on a separate sheet of paper and attach to this page.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY MCPP	___	___	___	___	___	___
CIR		x___	x___	x___	x___	x___
MCPP	___	___	___	___	___	___

Step 4

Multiply the MCPP by the SPE to determine the NS costs for Y-1 through Y-5.

	Y-1	Y-2	Y-3	Y-4	Y-5
MCPP	___	___	___	___	___
SPE	x___	x___	x___	x___	x___
NS	___	___	___	___	___

Step 5

Transfer these data to Worksheet #109.6.

WORKSHEET #109.5

Form #109 - Adjusted Base Case - Program and Project Summary

Directions for Calculating Salary (S), Non-Salary (NS), and Capital Outlay (CO) for Pupil Transportation Program

Step 1

Record below the total special pupil enrollments (TPSE) for CY through Y-5 from Form #104:

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
TPSE	___	___	___	___	___	___

Step 2

Record below the total number of special pupils riding (NPR) the school buses for CY:

NRP ________________

Step 3

Calculate the percent of pupils riding (PPR) the school buses for CY by dividing NPR by TPSE.

NPR / TPPE = PRR

___ / ____ = ___

Step 4

Calculate the NPR for Y-1 through Y-5 by multiplying the TSPE by the PRR.

	Y-1	Y-2	Y-3	Y-4	Y-5
TSPE	___	___	___	___	___
PRR	x___	x___	x___	x___	x___
NPR	___	___	___	___	___

Step 5

Calculate the total capacity (TC) for all buses by multiplying the total number of buses (TNB) by the total number of trips (TNT). Multiply the resulting product by the total seating capacity (TSC) of all buses.

TNB x TNT x TSC = TC

___ x ___ x ___ = ___

Step 6

Calculate the mean total capacity of each bus (MTCB) by dividing the TC by the TNB.

TC / TNB = MTCB

___ / ___ = ___

Step 7

Calculate the TNB for Y-1 through Y-5 by dividing the NPR by the MTCB.

	NPR	/	MTCB	=	TNB
Y-1	___	/	___	=	___
Y-2	___	/	___	=	___
Y-3	___	/	___	=	___
Y-4	___	/	___	=	___
Y-5	___	/	___	=	___

Step 8

Calculate the bus-bus driver ratio (BBDR) by dividing the TNB by the number of bus drivers (NBD) for CY.

TNB / NBD = BBDR

___ / ___ = ___

Step 9

Derive the total number of bus drivers needed (TNBD) for Y-1 through Y-5 by dividing the TNB for each year by the BBDR. You may round up to the nearest whole number or you may keep the fraction.

	TNB	/	BBDR	=	TNBD
Y-1	____	/	____	=	____
Y-2	____	/	____	=	____
Y-3	____	/	____	=	____
Y-4	____	/	____	=	____
Y-5	____	/	____	=	____

Step 10

Determine the mean CY salary for bus drivers (MSBD) and record below:

MSBD ________________

Step 11

Calculate the MSBD for Y-1 through Y-5 by increasing the CY MSBD by the compound inflation rate (CIR) used to calculate the salary costs for the Base Case.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY MSBD	___	___	___	___	___	___
CIR		x___	x___	x___	x___	x___
MSBD	___	___	___	___	___	___

Step 12

Calculate the total salary cost for bus drivers (TSCBD) for Y-1 through Y-5 by multiplying the MSBD by the TNBD for each year.

	Y-1	Y-2	Y-3	Y-4	Y-5
MSBD	___	___	___	___	___
TNBD	x___	x___	x___	x___	x___
TSCBD	___	___	___	___	___

Step 13

Calculate the total salary cost (TSC) for Y-1 through Y-5 by adding any additional salary costs (ASC) to TSCBD. (Increase ASC by the same CIR in Step 11.)

	Y-1	Y-2	Y-3	Y-4	Y-5
TSCBD	___	___	___	___	___
ASC	+___	+___	+___	+___	+___
TSC	___	___	___	___	___

Step 14

Record these data on Worksheet #7.4.

Step 15

Record below the non-salary cost (NSC) for CY:

NSC ________________

Step 16

Calculate the mean non-salary cost per bus (MNSCB) by dividing the NSC by the TNB for CY.

NSC / TNB = MNSCB

_____ / _____ = _____

Step 17

Calculate the MNSCB for Y-1 through Y-5 by multiplying the CY MNSCB by the CIR used to calculate the non-salary cost for the Base Case.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY MNSCB	___	___	___	___	___	___
CIR		x___	x___	x___	x___	x___
MNSCB	___	___	___	___	___	___

Step 18

Calculate the total non-salary costs (TNSC) for Y-1 through Y-5 by multiplying the MNSCB by the TNB for each year.

	Y-1	Y-2	Y-3	Y-4	Y-5
MNSCB	___	___	___	___	___
TNB	x___	x___	x___	x___	x___
TNSC	___	___	___	___	___

Step 19

Record these data on Worksheet #7.4.

Step 20

Record below the mean purchase cost of a bus (MPCB) for CY:

MPCB ________________

Step 21

Calculate the total capital outlay cost (TCOC) for Y-1 through Y-5 by multiplying the MPCB by the number of new buses (NNB) to be added each year. The total number of buses (TNB) have been calculated in Step 7. Inspection of these figures will indicate the NNB figures for each year.

	Y-1	Y-2	Y-3	Y-4	Y-5
MPCB	___	___	___	___	___
NNB	x___	x___	x___	x___	x___
TCOC	___	___	___	___	___

Step 22

Record these data on Worksheet #109.6.

WORKSHEET #109.6

Forms #109 and #109.1 - Adjusted Base Case - Program and Project Summary

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive	S						
	NS						
	CO						
	DS						
	T						
Comprehensive Planning	S						
	NS						
	CO						
	DS						
	T						
Information and Liaison	S						
	NS						
	CO						
	DS						
	T						
Community Services	S						
	NS						
	CO						
	DS						
	T						
Coordinative Support Services	S						
	NS						
	CO						
	DS						
	T						
Instructional Program Area Early Childhood Instruction	S						
	NS						
	CO						
	DS						
	T						
Elementary Instr.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Secondary Instr.	S						
	NS						
	CO						
	DS						
	T						
Voc.-Tech. Instr.	S						
	NS						
	CO						
	DS						
	T						
Special Instruction Mentally Retarded Trainable - Ele.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Trainable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Deaf	S						
	NS						
	CO						
	DS						
	T						
Blind and Partially Sighted	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Ele.	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Sec.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Educable - Ele.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Mentally Retarded Educable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Gifted - Elementary	S						
	NS						
	CO						
	DS						
	T						
Gifted - Secondary	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Ele.	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Sec.	S						
	NS						
	CO						
	DS						
	T						
Brain Damaged	S						
	NS						
	CO						
	DS						
	T						
Aphasic	S						
	NS						
	CO						
	DS						
	T						
Detention Homes - Homebound	S						
	NS						
	CO						
	DS						
	T						
Speech Correction (Itin.)	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Acoustically Handicapped (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Sight Conservation (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Ele. (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Sec.(Itin.)	S						
	NS						
	CO						
	DS						
	T						
Continuing Instr.	S						
	NS						
	CO						
	DS						
	T						
Instructional Support Services	S						
	NS						
	CO						
	DS						
	T						
Health Program Area Nursing	S						
	NS						
	CO						
	DS						
	T						

Worksheet #109.6

Page 4 of 7

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Medical	S						
	NS						
	CO						
	DS						
	T						
Dental	S						
	NS						
	CO						
	DS						
	T						
Psychological	S						
	NS						
	CO						
	DS						
	T						
Health Support Ser.	S						
	NS						
	CO						
	DS						
	T						
Business Program Area General Services	S						
	NS						
	CO						
	DS						
	T						
Pupil Transportation	S						
	NS						
	CO						
	DS						
	T						
Food Services	S						
	NS						
	CO						
	DS						
	T						
Facilities	S						
	NS						
	CO						
	DS						
	T						

Worksheet #109.6 Page 5 of 7

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Fixed Charges	S						
	NS						
	CO						
	DS						
	T						
Business Support Services	S						
	NS						
	CO						
	DS						
	T						

Worksheet #109.6

Page 6 of 7

Project	Cat.	Fiscal Year					
		Current Year	Y ____	Y ____	Y ____	Y ____	Y ____
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	ADJUSTED BASE CASE - PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele,						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

Form #109

Page 1 of 3

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	ADJUSTED BASE CASE - PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #109

Page 2 of 3

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	ADJUSTED BASE CASE - PROGRAM AND PROJECT SUMMARY	

Educational Unit:

Fiscal Year Project	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Project Total Annual Cost						
Program and Project Total Annual Cost						
Capital Improvement Project(s) Total Annual Cost						
Adjusted Program and Project(s) Total Annual Cost						

Form #109

Page 3 of 3

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	ADJUSTED BASE CASE - PROGRAM SUMMARY	

Educational Unit:

Fiscal Year Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable -Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

Form #109.1

Page 1 of 2

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	ADJUSTED BASE CASE - PROGRAM SUMMARY	

Educational Unit:

Program \ Fiscal Year	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #109.1

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ED037813

EA 002 751 (Vol. II)

Form #110: Capital Improvement Project

1. Fill in this form for capital improvement projects approved by your board of school directors.

2. Updated expenditure data on the project should be transferred from the copy of Worksheet #109.6 which shows program and project costs. The costs should be broken down by program. Use the copy of Worksheet #109.6 which was used to merge program and project costs to aid you in breaking down the project costs by program.

3. If any changes were made in compound inflation rates, personnel-pupil ratios, or other parameter values record this information under the program name on Form #110.

4. Show any reductions in Total Added Annual Operating Cost as a result of support from Federal, State, county, or other sources. These amounts must be transferred to Form #116 as revenue.

5. Fill in the information called for in Boxes 1, 2, and 3.

6. Write a brief description of the plant, its location, number of special pupils and school district professional staff serviced for the year, size of staff, and programs offered. Briefly describe the need for the plant.

7. If you used the PPBS Procedures Manual last year and produced a five year plan skip the balance of the instructions for this form.

8. However, if you did not develop a five year plan last school year with the PPBS Procedures Manual please continue through the balance of the instructions.

9. Project the Salary (S), Non-Salary (NS), Capital Outlay (CO), Debt Service (DS), and Total (T) for each program from Y-1 through Y-5 according to the rules set forth in this section. Worksheets #110.1, #110.2, and #110.3 have been provded to facilitate these computations.

    a. Only calculate the additional costs above the costs already reflected in the Adjusted Base Case Summary, Forms #109 and #109.1.

b. Use the actual cost figures for all projects that are funded on a fixed budget basis over a multi-year period. Federal and foundation projects fit into this category. Be sure all added costs related to a fixed budget project are projected on the basis of the project budget and are terminated in accordance with the project schedule.

c. Policy and Executive, Comprehensive Planning, Information and Liaison, Community Services, Coordinative Support Services, Early Childhood Instruction, Elementary Instruction, Secondary Instruction, Vocational-Technical Instruction, Continuing Instruction, Instructional Support Services, Nursing, Medical, Dental, Psychological, Health Support Services, General Services, Pupil Transportation, Food Services, Facilities, and Business Support Services.

(1) Salary -

(a) Use Worksheet #110.1 to record your calculations.

(b) Transfer these data to Worksheet #110.

(2) Non-Salary -

(a) Use Worksheet #110.1 to record your calculations.

(b) Transfer these data to Worksheet #110.3.

(3) Capital Outlay - Don't project the capital outlay beyond the first year encountered unless you have established a predetermined expenditure schedule. If you have established a schedule, record the figures for each year from Y-1 through Y-5.

(4) Debt Service - Project debt service on the basis of the known schedule for the capital improvement project. If this information is not available project the start up year's figure to Y-5.

d. Special Instruction

(1) Salary - The increase in teachers and in salary expenditures for Y-1 through Y-5 is reflected in Form #109. This increase is based on the assumption that the pupil-

teacher ratio for the Current Year remains constant to Y-5.

(2) Non-Salary - The increase in non-salary expenditures for Y-1 through Y-5 is reflected in Form #109. This increase is based on the assumption that the per pupil non-salary cost remains constant because of the Department of Public Instruction's regulations. The capital improvement reported here may add to this non-salary cost. If the cost is increased this cost must be calculated, because it will be used in calculating the Final Base Case.

  (a) Use Worksheet #110.2 to aid you in performing these calculations.

  (b) Record these data on Worksheet #110.3.

(3) Capital Outlay - Don't project the capital outlay beyond the first year encountered unless an expenditure schedule has been established. If you have established a schedule record the exact figures for each year.

(4) Debt Service - Project debt service on the basis of the known schedule for the capital improvement project. If this information is not available project the start up year's figure to Y-5.

e. Fixed Charges

(1) Salary -

  (a) If additional staff are added for a capital improvement project, calculate the additional fixed charge salary costs (AFCSC).

(b) The AFCSC is calculated by multiplying the additional salary cost (ASC) by the percent of the total fixed charge salary (PTFCSC) for each year the capital addition is opened from Y-1 through Y-5. The PTFCSC was worked out for the Fixed Charge calculations on Forms #109 and #109.1.

ASC x PTFCSC = AFCSC (Y-1 through Y-5)

(c) Record these data on Worksheet #110.3.

(2) Non-Salary - In the absence of a detailed, reliable cost accounting system for the intermediate unit, dollars from this program will not be allocated to a capital improvement project.

(3) Capital Outlay - Don't project beyond the first year encountered.

(4) Debt Service - Project the service on the basis of the known schedule for the capital improvement project. If the information is not available project the start up year's figure to Y-5.

10. Transfer the additional costs for each program to Form #110 from Worksheet #110.3.

11. Show any reductions in Total Added Annual Operating Cost as a result of support from Federal, State, County, or other sources. These amounts must be transferred to Form #116 as revenue.

Worksheet #110.1

Form #110 - Capital Improvement Project

Directions for Calculating the Salary and Non-Salary Costs for all Programs Except Special Instruction and Fixed Charges

Step 1

Record below the additional personnel added (APA) to the program because of the capital improvement project during the years the improvement is opened from Y-1 through Y-5.

	Y-1	Y-2	Y-3	Y-4	Y-5
APA	___	___	___	___	___

Step 2

Record below the number of personnel currently on staff (NPCS) for the program:

NPCS ________________

Step 3

Record the Current Year's total salary cost (TSC) for the program:

TSC ________________

Step 4

Calculate the mean salary cost (MSC) for the Current Year by dividing the TSC by the NPCS.

TSC / NPCS = MSC

____ / ____ = ____

Step 5

Calculate the MSC for each year the capital improvement project is opened from Y-1 through Y-5 by multiplying the CY MSC by a compound inflation rate (CIR) selected from Table 1. Use the same CIR used for the Base Case and Adjusted Base Case.

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
CY MSC	___	___	___	___	___	___
CIR		x___	x___	x___	x___	x___
MSC	___	___	___	___	___	___

Step 6

Calculate the total additional salary cost (TASC) for the program for each year the capital improvement project is opened by multiplying the MSC by the APA.

	Y-1	Y-2	Y-3	Y-4	Y-5
MSC	___	___	___	___	___
APA	x___	x___	x___	x___	x___
TASC	___	___	___	___	___

Step 7

Record these data on Worksheet #110.3.

Step 8

Record below the additional non-salary (ANS) costs added to the program because of the capital improvement project during the years the improvement is opened from Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
ANS	___	___	___	___	___

Step 9

Record these data on Worksheet #110.3.

WORKSHEET #110.2

Form #110 - Capital Improvement Project

Directions for Calculating Non-Salary Costs for all Special Instruction Subprograms

Step 1

Record below the number of pupils in the program to be serviced (NPS) by the capital improvement project in the first year:

NPS ________________

Step 2

Record below the estimated additional non-salary costs per pupil (EACP) in the first year that the capital improvement project will add to the per pupil non-salary cost of the program shown on the copy of Worksheet #109.1:

EACP ________________

Step 3

Record below the number of pupils in the program to be serviced (NPS) by the capital improvement during the years it opened from Y-1 through Y-5:

Grade	Y-1	Y-2	Y-3	Y-4	Y-5
_____	___	___	___	___	___

Step 4

Calculate the total additional non-salary costs (ANSC) for each year the capital improvement project is open from Y-1 through Y-5 by multiplying the EACP by the NPS.

	Y-1	Y-2	Y-3	Y-4	Y-5
EACP	___	___	___	___	___
NPS	x___	x___	x___	x___	x___
ANSC	___	___	___	___	___

Step 5

Record these data on Worksheet #110.3.

WORKSHEET #110.3

Form #110 - Capital Improvement Project

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive	S						
	NS						
	CO						
	DS						
	T						
Comprehensive Planning	S						
	NS						
	CO						
	DS						
	T						
Information & Liaison	S						
	NS						
	CO						
	DS						
	T						
Community Services	S						
	NS						
	CO						
	DS						
	T						
Coordinative Support Services	S						
	NS						
	CO						
	DS						
	T						
Instructional Program Area Early Childhood Instruction	S						
	NS						
	CO						
	DS						
	T						
Elementary Instr.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Secondary Instruction	S						
	NS						
	CO						
	DS						
	T						
Voc.-Tech. Instr.	S						
	NS						
	CO						
	DS						
	T						
Special Instruction Mentally Retarded Trainable - Ele.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Trainable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Deaf	S						
	NS						
	CO						
	DS						
	T						
Blind & Partially Sighted	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Ele.	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Sec.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Educable - Ele.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Mentally Retarded Educable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Gifted - Ele.	S						
	NS						
	CO						
	DS						
	T						
Gifted - Sec.	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Ele.	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Sec.	S						
	NS						
	CO						
	DS						
	T						
Brain Damaged	S						
	NS						
	CO						
	DS						
	T						
Aphasic	S						
	NS						
	CO						
	DS						
	T						
Detention Homes - Homebound	S						
	NS						
	CO						
	DS						
	T						
Speech Correction (Itin.)	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Acoustically Handicapped (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Sight Conservation (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Ele. (It.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Sec. (It.)	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
Continuing Instr.	S						
	NS						
	CO						
	DS						
	T						
Instructional Sup. Services	S						
	NS						
	CO						
	DS						
	T						
Health Program Area Nursing	S						
	NS						
	CO						
	DS						
	T						

5

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Medical	S						
	NS						
	CO						
	DS						
	T						
Dental	S						
	NS						
	CO						
	DS						
	T						
Psychological	S						
	NS						
	CO						
	DS						
	T						
Health Support Ser.	S						
	NS						
	CO						
	DS						
	T						
Business Program Area General Services	S						
	NS						
	CO						
	DS						
	T						
Pupil Transportation	S						
	NS						
	CO						
	DS						
	T						
Food Services	S						
	NS						
	CO						
	DS						
	T						
Facilities	S						
	NS						
	CO						
	DS						
	T						

Worksheet #110.3

Page 5 of 6

Program	Cat.	Fiscal Year Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Fixed Charges	S						
	NS						
	CO						
	DS						
	T						
Business Support Services	S						
	NS						
	CO						
	DS						
	T						

Worksheet #110.3

Page 6 of 6

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	CAPITAL IMPROVEMENT PROJECT	

1. Project Title & Location

2. Project #

3. New Project? Yes ☐ No ☐

Revised Project? Yes ☐ No ☐

Estimated Useful Life______Yrs.

Date Begin?________________

Date Complete?_____________

Estimated Construction Cost? $_________________

4. Description & Justification

6. Added Major Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
TOTAL ADDED ANNUAL OPERATING COST						

7. Revenue Related to Added Operating Costs	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Less - Federal						
Less - State						
Less-Co. Commissioners						
Less - Others						
TOTAL REVENUE RELATED TO ADDED OPERATING COST						

Form #110

Form #111: Capital Program Summary

1. Fill in the name of your intermediate unit or county office.
2. Transfer the data from Form #110. If more than one capital improvement is involved combine the data by program.
3. This form provides a convenient summary of all capital improvement projects that can be utilized in Report #1.

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	CAPITAL IMPROVEMENT PROJECT(S) SUMMARY	

Educational Unit:

Fiscal Year / Program Area	Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally **Retarded** Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

Form #111

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	CAPITAL IMPROVEMENT PROJECT(S) SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Ser.						
Annual Cost						
Total Annual Operating Cost						

Form #111

Page 2 of 2

Form #112: Program Detail and
Form #112.1: Project Detail

1. Fill in the name of your intermediate unit or county office on Form #112.

   a. Fill in the Program Area, Program, and Program Manager. The Program Manager is the individual designated to supervise the program.

   b. A form is to be filled out for all twenty-three programs, Special Instruction subprograms and any other subprograms you may designate.

   c. Circle the indicator(s) influenced by this program.

   d. In most cases the box marked Continuing should be checked. However, it is possible that a program was begun the previous year or is being instituted during the current school year. Check the box marked Tentative in the former case or the box marked New in the latter case.

   e. Transfer the data from the copy of Worksheet #109.6 used for programs and projects to the Program Cost Section. Don't add in capital improvement or operations project costs.

   f. Develop a comprehensive and accurate description of each program. The description should contain the following:

      (1) A concise general description of the content of the program and a listing of all it's subprograms;

      (2) Clientele served by the program;

      (3) Number of professional and non-professional staff members by manpower category (see Form #115) employed in the program;

      (4) Plant committed to the program;

      (5) Description of the methods, procedures and techniques used to execute and control the program; and

      (6) Parameter values used in projecting the expenditures for the program.

2. If you are using the PPBS Procedure for the first time don't fill out Form #112.1. This form has been provided for intermediate units who used the procedure last year and, as a result, have instituted new operations projects during the present school year.

3. Record only operations projects on Form #112.1. Capital improvement projects are recorded on Form #110.

4. Fill in the name of your school district on Form #112.1.

    a. Fill in the Project Title.

    b. Circle the indicator(s) influenced by the project.

    c. If the project has been running for several years, check the box marked Continuing. However, if the project was begun last year or instituted this year check the box marked Tentative in the former case or the box marked New in the latter case.

    d. Transfer the data from the copy of Worksheet #109.6 used for both programs and projects.

    e. Write a comprehensive description of each project that contains the informational content required for the detailed program description.

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE		PROGRAM - DETAIL	
Educational Unit:	Program Area:	Program:	Program Manager:
Subprogram:	Related Indicators: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6		Continuing ☐ Tentative ☐ New ☐

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Salary						
Non-Salary						
Capital Outlay						
Debt Service						
Total Annual Cost						

Program Description:

Form #112

ANALYSIS AND SUMMARIZATION -
FINAL BASE CASE

PROJECT - DETAIL

Educational Unit:

Project Title:

Project Manager:

Related Indicators:
1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8,
2.1, 2.2, 2.3, 2.4, 2.5, 2.6,

Continuing ☐
Tentative ☐
New ☐

Fiscal Year / Project Costs	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Salary						
Non-Salary						
Capital Outlay						
Debt Service						
Total Annual Cost						

Fiscal Year / Revenue Related to Annual Operating Costs	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Less - Federal						
Less - State						
Less - County						
Less - Other						
Total Revenue Related to Added Operating Cost (Transfer to Form #116)						

Project Description:

Form #112.1

Form #113: Program Review and
Form #113.1: Project Review

1. Fill in the name of your intermediate unit or county office on Form #113.

    a. Fill in the name of the Program Area, Program and Program Manager. The Program Manager is the individual designated to supervise the program.

    b. Circle the indicator(s) influenced by the program.

    c. In most cases the box marked Continuing should be checked. However, it is possible that a program was begun the previous year or is being instituted during the current school year. Check the box marked Tentative in the former case or the box marked New in the latter case.

    d. Write a concise review of the progress in the program during the present school year. Describe any problems that have emerged in the program.

    e. State the main objective of the program, if possible, in terms that will enable measurement of progress toward the objective.

    f. List any policy changes that have been instituted that have affected the program as originally conceived.

    g. Describe any related forecasts that indicate a need for a change in the program as it was originally conceived.

    h. List one to three possible solutions for the problem(s).

    i. Suggest future courses of action concerning the program.

2. Fill out a Form #113.1 for each capital improvement project and operations project shown on Form #110 and #112.1.

    a. Fill in the name of your intermediate unit.

    b. Fill in the name of the Project Title and Project Manager. The Project Manager is the individual designated to supervise the project or one who is generally responsible for project development.

c. Circle the indicator(s) influenced by the project.

d. In most cases the box marked Continuing should be checked. However, it is possible that a project was begun the previous year or is being instituted during the current school year. Check the box marked Tentative in the former case or the box marked New in the latter case.

e. Write a concise review of the progress in the project during the present school year. Describe any problems that have emerged in the project.

f. State the main objective of the project, if possible, in terms that will enable measurement of progress or lack or progress toward the objective.

g. Enumerate any policy changes that have been passed that have affected the project as originally conceived.

h. Describe any related forecasts that indicate a need for a change in the project as it was originally conceived.

i. List one to three possible solutions for the problem(s).

j. Suggest future courses of action concerning the project.

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE		PROGRAM REVIEW	
Educational Unit:	Program Area:	Program:	Program Manager:
Subprogram:	Related Indicators: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6		Continuing ☐ Tentative ☐ New ☐

Program Review:

Main Objective of the Program:

Policy Change(s) Affecting Program:

Related Forecast Error(s):

Possible Solution(s):

Proposed Action(s):

Form #113

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	PROJECT REVIEW	

Educational Unit:

Project Title:

Project Manager:

Related Indicators:
1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9,
2.1, 2.2, 2.3, 2.4, 2.5, 2.6

Continuing ☐
Tentative ☐
New ☐

Project Review:

Main Objective of the Project:

Policy Change(s) Affecting Project:

Related Forecast Error(s):

Possible Solution(s):

Proposed Action(s);

Form #113.1

Form #114: Final Base Case - Program and Project Summary and Form #114.1: Final Base Case - Program Summary

1. Fill in the name of your intermediate unit or county office on each form.

2. Transfer the total costs from Forms #110, #112, and #112.1 for each program and project to Form #114.

3. If you used the PPBS Procedure last year, transfer the totals for each program from the copy of Form #109.1 to Form #114.1.

4. If you are using the procedure for the first time, transfer the costs from Form #109.1 to the ABC cells on Worksheet #114.1. Transfer the capital improvement project(s) costs from Form #110 to the cells marked CI on Worksheet #114.1. Add the ABC and CI costs together to derive the total cost for each program. Transfer the total cost for each program to Form #114.1.

5. The purpose of the calculations for the Final Base Case shown on Form #114 is to show: (1) the combined effects of inflation, increased or decreased enrollments, and added costs because of capital improvement project(s) on the expenditure pattern over the next five years for each program; and (2) the combined effects of inflation and increased or decreased enrollment on the expenditure pattern of many projects over the next five years.

6. Form #114.1 shows all of these effects for the twenty-three basic programs.

7. Calculate the Final Base Case Indicator levels by using Worksheets #108.1 to #108.15. Additional costs for capital improvement project(s) will change some of the indicator levels. Record all Final Base Indicator level plots on Forms #108 and #108.1.

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	FINAL BASE CASE - PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	FINAL BASE CASE - PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #114

Page 2 of 3

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	FINAL BASE CASE - PROGRAM AND PROJECT SUMMARY	

Educational Unit:

Fiscal Year / Project	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Project Total Annual Cost						
Program and Project Total Annual Cost						
Capital Improvement Project(s) Total Annual Cost						
Adjusted Program and Project(s) Total Annual Cost						

Form #114

Page 3 of 3

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	FINAL BASE CASE - PROGRAM SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1 ____	Y_2 ____	Y_3 ____	Y_4 ____	Y_5 ____
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped - Elementary						
Physically Handicapped - Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

Form #114.1

Page 1 of 2

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	FINAL BASE CASE - PROGRAM SUMMARY	

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #114.1

Page 2 of 2

WORKSHEET #114.1

Forms #114 and #114.1 - Final Base Case - Program and Project Summary

Program	Cat.	Manpower Requirements	Fiscal Year					
			Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive	ABC							
	CI							
	T							
Comprehensive Planning	ABC							
	CI							
	T							
Information & Liaison	ABC							
	CI							
	T							
Community Services	ABC							
	CI							
	T							
Coordinative Support Services	ABC							
	CI							
	T							
Instructional Program Area Early Childhood Instruction	ABC							
	CI							
	T							
Elementary Instruction	ABC							
	CI							
	T							
Secondary Instruction	ABC							
	CI							
	T							
Voc.-Tech. Instruction	ABC							
	CI							
	T							
Special Instruction	ABC							
	CI							
	T							
Mentally Retarded Trainable - Elementary	ABC							
	CI							
	T							
Mentally Retarded Trainable - Secondary	ABC							
	CI							
	T							
Deaf	ABC							
	CI							
	T							

Page 1 of 4

Program	Cat.	Man-power requirements	Fiscal Year					
			Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Blind & Partially Sighted	ABC							
	CI							
	T							
Physically Handicapped - Elementary	ABC							
	CI							
	T							
Physically Handicapped - Secondary	ABC							
	CI							
	T							
Mentally Retarded Educable - Elementary	ABC							
	CI							
	T							
Mentally Retarded Educable - Secondary	ABC							
	CI							
	T							
Gifted - Elementary	ABC							
	CI							
	T							
Gifted - Secondary	ABC							
	CI							
	T							
Emotionally & Socially Maladjusted - Ele.	ABC							
	CI							
	T							
Emotionally & Socially Maladjusted - Sec.	ABC							
	CI							
	T							
Brain Damaged	ABC							
	CI							
	T							
Aphasic	ABC							
	CI							
	T							
Detention Homes - Homebound	ABC							
	CI							
	T							
Speech Correction (Itin.)	ABC							
	CI							
	T							
Acourstically Handicapped (Itin.)	ABC							
	CI							
	T							
Gifted - Ele. (Itin.)	ABC							
	CI							
	T							
Gifted - Sec. (Itin.)	ABC							
	CI							
	T							
Continuing Instruction	ABC							
	CI							
	T							

Worksheet #114.1

Page 2 of 4

Program	Cat.	Man-power require-ments	Fiscal Year					
			Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Instr. Support Services	ABC							
	CI							
	T							
	ABC							
	CI							
	T							
Health Program Area Nursing	ABC							
	CI							
	T							
Medical	ABC							
	CI							
	T							
Dental	ABC							
	CI							
	T							
Psychological	ABC							
	CI							
	T							
Health Support Services	ABC							
	CI							
	T							
Business Program Area General Services	ABC							
	CI							
	T							
Pupil Transportation	ABC							
	CI							
	T							
Food Services	ABC							
	CI							
	T							
Facilities	ABC							
	CI							
	T							
Fixed Charges	ABC							
	CI							
	T							
Business Support Services	ABC							
	CI							
	T							

Worksheet # 114.1

Project	Cat.	Man-power requirements	Fiscal Year					
			Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
	ABC							
	CI							
	T							
	ABC							
	CI							
	T							
	ABC							
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Form #115: Manpower Requirements - Final Base Case

1. Fill in the name of your intermediate unit or county office.

2. Fill in the data concerning the type of position and the number presently employed in these positions in the Current Year Column.

3. The projection figures for Special Instruction Program Staff can be found on Forms #112 and #112.1. These figures can be projected by category, grade level, or subject specialty.

4. All other employment figures are held constant from Current Year through Y-5 except where staff has been added for capital improvement and operations project(s). Forms #110 and #112.1 should contain these data.

5. The New Positions Column (NP) contains the difference between the position requirements of the year under consideration and the number of persons in that position the previous year.

6. The Staff Turnover Column (ST) contains data on staff turnover. This figure is derived by taking the percent of turnover based on past experience and applying this percent of turnover to the previous year's figures for staff. Worksheet #108.13 contains the percent of turnover for the entire staff. You may calculate the rates separately for each major manpower position area, i.e., Professional Administration, Professional Instruction, Instructional Specialists, Technical Specialists, and Collateral Services.

7. The Total Staff Required is derived by adding the NP figure to the previous year's figure for total staff.

ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	MANPOWER REQUIREMENTS-FINAL BASE CASE

Educational Unit:

Fiscal Year	Current Year	Y_1		Y_2		Y_3		Y_4		Y_5	
# of Positions Position	Number Employed	NP	ST	NP	ST	NP	ST	NP	ST	NP	ST
Professional Admn.											
Superintendent											
Asst. Supt.											
Directors											
Assoc. Director											
Coordinator											
Professional Instr.											
Mentally Retarded Trainable - Ele.											
Mentally Retarded Trainable - Sec.											
Deaf											
Blind & Part.Sight.											
Physically Handcapped - Ele.											
Physically Handicapped - Sec.											
Mentally Retarded Educable - Ele.											
Mentally Retarded Educable - Sec.											
Gifted - Ele.											
Gifted - Sec.											
Emotionally & Soc. Maladj.-Ele.											
Emotionally & Soc. Maladj.-Sec.											
Brain Damaged											
Aphasic											
Detention Homes - Homebound											
Speech Correction (Itin.)											
Acoustically Handicapped (Itin.)											
Sight Conservation (Itin.)											
Gifted-Ele.(Itin.)											
Gifted-Sec.(Itin.)											

Form #115

Page 1 of 2

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	MANPOWER REQUIREMENTS-FINAL BASE CASE

Educational Unit:

Fiscal Year	Current Year	Y_1		Y_2		Y_3		Y_4		Y_5	
# of Positions / Position	Number Employed	NP	ST	NP	ST	NP	ST	NP	ST	NP	ST
Instr. Specialists											
English											
Guidance											
Language											
Mathematics											
Psychologist											
Science											
Social Studies											
Special Instr.											
Teachers Aid											
Technical Specialists											
Instr.Media											
Library Technician											
Programmer											
Research Asst.											
Systems Analyst											
Collateral Services											
Clerical											
Operation											
Maintenance											
Bus Drivers											
Food Service											
Other											
Total to be Hired		+		+		+		+		+	
Total Staff Required											

Form #116: Revenue Estimate

1. Fill in the name of your intermediate unit or county office.

2. A procedure comparable to the revenue forecasting procedure for local school districts has not been developed for the intermediate unit because of the fixed nature of most of the intermediate unit's revenue. However, Worksheet #116.1 has been provided to assist you in estimating those revenues derived from assessments of school districts that are related to pupil population or numbers of teachers.

3. Calculate the revenue derived from the county commissioners' on the basis of the mean rate of increase over the past three to five years. Multiply the previous years revenue figure by the mean rate of increase to determine the estimated figure for the year in question. Begin by calculating Y-1 estimated revenue by multiplying the CY revenue figure by the mean rate of increase. Follow this procedure for Y-2 through Y-5. Record any other basis for making the revenue estimate on a separate sheet and attach to Form #116.

4. The semi-automated batch-process version (PPBS - Version II, Model 1) will provide an estimate of special instruction revenue based on the Pennsylvania Department of Public Instruction's maximum expenditure limits.

5. Expenditures for salaries supported fully or in part by state funds should not exceed the statutory limits set for these salaries. The school district contributory share of the staff salaries should be estimated on a trend based on a study of past three to five years. Follow the same procedure for calculating the estimated revenue for Y-1 through Y-5 that was used in calculating the estimated revenue derived from the county commissioners. Record any other basis for making the revenue estimate on a separate sheet of paper and attach the sheet to Form #116.

6. The estimations of revenues that are constrained by previous fixed price contracts, such as, federal or state projects, must equal the expenditures for these projects. Revenues for these projects must terminate according to the project's time schedule.

7. The main assumption underlying the base cases is that the present level of service will remain constant over the next five years. Therefore, any difference between revenues and expenditures other than those caused by errors in calculations, must be examined closely. The imbalances may represent problems to be corrected by project alternatives in the second half of the procedure.

8. List all Federal, State, County, School District and other revenue sources on the form. Record the estimated revenue for each year opposite these sources on the form.

WORKSHEET #116.1

Form #116: Revenue Estimate

Directions for Calculating Revenues Associated with Pupil Population and Numbers of Teachers

Step 1

Record the school district enrollment figures required to determine the revenue for Y-1 through Y-5. These data are located on Form #101.

Grade Level	Y-1	Y-2	Y-3	Y-4	Y-5
Kindergarten	___	___	___	___	___
1-6	___	___	___	___	___
7-12	___	___	___	___	___
Special Education	___	___	___	___	___
Voc-Tech Education	___	___	___	___	___
Continuing Education	___	___	___	___	___
Total	___	___	___	___	___

Step 2

Record the rate per pupil (RPP) currently being levied.

RPP ______________

Step 3

Multiply the total school district enrollment (TSDE) by the RPP to derive the revenue (R) for Y-1 through Y-5.

	Y-1	Y-2	Y-3	Y-4	Y-5
TSDE	___	___	___	___	___
RPP	x___	x___	x___	x___	x___
R	___	___	___	___	___

Step 4

Record these data on Form #116.

Step 5

Record the total number of classroom teachers (TNCT) or other personnel (TNOP). The number of classroom teachers from Y-1 through Y-5 is located on Worksheet #102.4.

	Y-1	Y-2	Y-3	Y-4	Y-5
TNCT or TNOP	___	___	___	___	___

Step 6

Record the rate per classroom teacher (RPCT) or other personnel (RPOP) currently being levied.

RPCT or RPOP ________________

Step 7

Multiply the TNCT or TNOP by the RPCT or RPOP to derive the revenue (R) for Y-1 through Y-5.

	Y-1	Y-2	Y-3	Y-4	Y-5
TNCT or TNOP	___	___	___	___	___
RPCT or RPOP	x___	x___	x___	x___	x___
R	___	___	___	___	___

Step 8

Record these data on Form #116.

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	REVENUE ESTIMATE	

Educational Unit:

Fiscal Year / Revenue Source	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5

Form #116

Form #117: Financial Feasibility - Final Base Case

1. Fill in the name of your intermediate unit or county office.

2. Fill in the estimated total annual cost for the Final Base Case for Current Year through Y-5. Take the data from Form #114.

3. Fill in the revenue estimates for Current Year through Y-5. The data can be found on Form #116.

4. As stated on Form #116 the main assumption of the base case is that the present level of services will remain constant over the next five years. Any differences that may arise between expenditures and revenues may be the result of problems caused by costs increasing or decreasing at a faster rate than the revenue base. This latter case is most likely to occur with service expenditures related to fixed per pupil or per personnel assessments. Close examination of the expenditure patterns for these services is required if this situation occurs. Problems identified by this examination will be dealt with in the second half of the PPBS Procedure. with in the second half of the PPBS Procedure. At this time feasible alternative revenue or project solutions will be examined and the most desirable feasible solution will be selected for incorporation into the Five-Year Plan.

	ANALYSIS AND SUMMARIZATION - FINAL BASE CASE	FINANCIAL FEASIBILITY-FINAL BASE CASE	

Educational Unit:

Fiscal Year / Final Base Case Revenue	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Final Base Case Cost						
Revenue Forecast						
(Deficit) or Surplus						

Comments:

Form #117

Report #1: Current Year to Y-5 Final Base Case

This is a comprehensive narrative report that summarizes the Final Base Case. It is presented to the intermediate unit or county board of school directors by the superintendent of schools. The report should contain a brief explanation of the PPBS procedures leading to this report, discussion of the present primary objectives, areas of immediate concern over the next five years, financial considerations, revenue estimates, present indicator levels, and recommendations concerning desired primary objectives. The format employed in the report will be a matter of personal taste; however, effective communication should be the primary criterion when deciding on a format.

The opening statements should serve to familiarize the board with the PPBS procedure, particularly the portion leading up to this report. A review and examination of the primary objectives of the intermediate unit should be included at this point. Primary objective statements should be concerned with first order or intermediate unit wide objectives. These objectives should be expressed as clearly as possible. The set of primary objective statements should include verbal statements of the desired levels to be achieved for each indicator.

The review of the primary objectives should be followed by a detailed discussion of the Final Base Case. Particular emphasis should be placed on those aspects of the Final Base Case requiring careful attention during the development of capital improvement and operations project alternatives for the Five Year Plan.

The financial implications of the Final Base Case should be examined along with the revenue estimates. If deficits or surpluses appear in the Final Base Case, these should be discussed in some detail.

The current year's indicator levels and the five year projections of these levels for the Final Base Case should also be covered. This discussion will lead to the recommendations of the superintendent and his staff concerning a new set of primary objectives for the Five Year Plan. Each objective should be stated clearly and concisely. Whenever possible objectives should be selected that lend themselves to quantitative measurement. The data gathering and data analysis should be specified. Relevant "real-world" limiting conditions or constraints of time, money, and policy that effect the accomplishment of the recommended objectives should also be detailed.

The objectives should now be discussed in terms of possible alternative courses of action to achieve them. A useful approach to relating the objectives to possible alternative courses of action or alternative projects to achieve these objectives can be developed through a matrix of objectives and related variables. The objectives can be listed on the vertical axis and the variables on the horizontal axis. Only variables that are presumed to exercise a high degree of influence over whether or not a given objective is to be achieved should be listed.

The considerations and approval of this report and the recommendations concerning new objectives by the board will lead to the development of a Policy Guideline Statement that forms the basis for Report #2.

The following forms provide data input to the report and can be used as display material in the report:

1. Form #101: Enrollment Forecast - School District
2. Form #104: New Enrollment Forecast - Special Instruction
3. Form #108: Calculations and Projections of Indicators - for Base Case - Detail
4. Form #108.1: Calculations and Projections of Indicators for Base Case - Summary
5. Form #110: Capital Improvement Project
6. Form #111: Capital Improvement Project - Summary
7. Form #112: Program - Detail
8. Form #112.1: Project - Detail
9. Form #113: Program Review
10. Form #113.1: Project Review
11. Form #114: Final Base Case - Program and Project Summary
12. Form #114.1: Final Base Case - Program Summary
13. Form #115: Manpower Requirements - Final Base Case
14. Form #116: Revenue Requirements
15. Form #117: Financial Feasibility - Final Base Case

Report #2: Policy Guidelines Statement

This is a narrative report of the results of the intermediate unit or county board of school directors deliberations concerning Report #1. A copy of this report should be sent to each board member and designated staff members. The same concerns regarding format discussed in the instructions for Report #1 also apply to this report, i.e., the format should be mainly dictated by a desire to communicate clearly and concisely.

The background leading up to the development of this report should be briefly discussed. This discussion will serve to reacquaint the board and staff with the PPBS procedures leading to this report and with the relevant facts contained in Report #1.

A re-statement of the primary objectives should be made at this point with any changes that have grown out of the board's deliberations. The rationale for these changes should be explained and any pertinent data used to support the rationale should be provided. This report forms the basis for developing the Five-Year Plan because it spells out the primary objectives for the intermediate unit and the "real-world" limiting conditions or constraints which must be satisfied if the objectives are to be attained.

Form #118: Operations Project Alternative - Proposed and
Form #118.1: Capital Improvement Project - Proposed

1. Follow the procedure outlined below in filling out Form #118:

    a. Fill in the name of your intermediate unit or county office, title of the project, and the name of the project manager.

    b. Circle the indicator(s) influenced by the project.

    c. The costs for the proposed operating project must be calculated for Y-1 through Y-5. You may use the projection procedures employed in developing the Final Base Case costs or you may calculate the exact costs for each year by program and project. Use a copy of Worksheet #118.1 to record the calculations for additional Salary (S), Non-Salary (NS), Capital Outlay (CO), and Debt Service(DS) costs for each program and project affected by the proposed operations project. Record the parameter values, i.e., pupil-personnel ratios and compound inflation rates, used to calculate these costs in the space below the program or project name and opposite the S, NS, CO, or DS. Add these figures together and transfer the sums to the Project Costs Section.

    d. Write the main objective for the project.

    e. Write a comprehensive and accurate description of the project. The description should contain the following:

        (1) A concise general description of the project and a listing of all programs and projects affected;

        (2) Clientele to be served by the project;

        (3) Number of professional and non-professional staff members by manpower category (see Form #115) to be employed in the project;

        (4) Plant to be committed to the project;

        (5) Description of the methods, procedures and techniques used to execute and control the program; and

(6) Parameter values used in projecting the expenditures for the project.

f. Show any reductions in total annual operating costs because of support from Federal, State, County, or other sources. These amounts must be transferred to a copy of Form #120.

2. Use the following procedure to complete from #118.1:

a. Fill in the information called for in Boxes 1, 2, and 3.

b. Write a brief description of the proposed plant, its proposed location, number of special pupils and school district professional staff to be serviced, size of the proposed staff, and programs and projects affected by its construction. Briefly describe the need for the plant.

c. The costs for the proposed capital improvement project must be calculated for all years the project will have an impact on expenditures from Y-1 through Y-5. You may use the projection procedures employed in Form #110 , or you may calculate the exact cost for each year by program and project. Use a copy of Worksheet #118.1 to record the calculations for additional S, NS, CO, and DS costs for each program and project affected by the capital improvement project. Record the parameter values used to calculate these costs in the space below the program or project name and opposite the S, NS, CO, or DS line. Transfer these figures by program and project to the Added Major Program and Project Section.

d. Show reductions in Total Added Annual Operating Cost as a result of support from Federal, State, County, or other sources. These amounts must be transferred to a copy of Form #120.

	FIVE-YEAR PLAN	OPERATIONS PROJECT ALTERNATIVE - PROPOSED	

Educational Unit:	Project Title:	Project Manager:

Related Indicators:
1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8,
2.1, 2.2. 2.3, 2.4, 2.5, 2.6

Fiscal Year Project Costs	Y_1	Y_2	Y_3	Y_4	Y_5
Salary					
Non-Salary					
Capital Outlay					
Debt Service					
Total Added Annual Operating Cost					
Fiscal Year Revenue Related to Annual Operating Costs	Y_1	Y_2	Y_3	Y_4	Y_5
Less - Federal					
Less - State					
Less - County					
Less - Other					
Total Revenue Related to Added Operating Cost (Transfer to Form #120)					

Project Objective:

Project Description:

Form #118

	FIVE - YEAR PLAN	CAPITAL IMPROVEMENT PROJECT ALTERNATIVE - PROPOSED	

1. Project Title & Location

2. Project #

3. New Project? Yes ☐ No☐

Revised Project? Yes ☐ No☐

Estimated Useful Life ______Yrs.

Date Begin? ________________

Date Complete? ______________

Estimated Construction Cost? $________________

4. Description & Justification

5. Added Major Program and Project	Y_1	Y_2	Y_3	Y_4	Y_5
TOTAL ADDED ANNUAL OPERATING COST					

6. Revenue Related To Added Operating Costs	Y_1	Y_2	Y_3	Y_4	Y_5
Less - Federal					
Less - State					
Less - County Commissioners					
Less - Others					
TOTAL REVENUE RELATED TO ADDED OPERATING COST(Transfer to Form #120)					

Form #118.1

WORKSHEET #118.1

Forms #118 and #118.1: Operations and Capital Improvement Project Alternatives - Proposed

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Coordinative Pro.Area Policy & Executive	S						
	NS						
	CO						
	DS						
	T						
Comprehensive Planning	S						
	NS						
	CO						
	DS						
	T						
Information and Liaison	S						
	NS						
	CO						
	DS						
	T						
Community Services	S						
	NS						
	CO						
	DS						
	T						
Coordinative Supp. Services	S						
	NS						
	CO						
	DS						
	T						
Instructional Pro. Area Early Childhood Instr.	S						
	NS						
	CO						
	DS						
	T						
Elementary Instr.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Secondary Instr.	S						
	NS						
	CO						
	DS						
	T						
Voc-Tech. Instr.	S						
	NS						
	CO						
	DS						
	T						
Special Instruction Mentally Retarded Trainable - Ele.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Trainable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Deaf	S						
	NS						
	CO						
	DS						
	T						
Blind and Partially Sighted	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Ele.	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Sec.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Educable - Ele.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Mentally Retarded Educable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Gifted - Elementary	S						
	NS						
	CO						
	DS						
	T						
Gifted - Secondary	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Ele.	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Sec.	S						
	NS						
	CO						
	DS						
	T						
Brain Damaged	S						
	NS						
	CO						
	DS						
	T						
Aphasic	S						
	NS						
	CO						
	DS						
	T						
Detention Homes - Homebound	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Speech Correction (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Acoustically Hand. (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Sight Conservation (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Ele.(Itin)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Sec. (Itin)	S						
	NS						
	CO						
	DS						
	T						
Continuing Instr.	S						
	NS						
	CO						
	DS						
	T						
Instructional Supp. Services	S						
	NS						
	CO						
	DS						
	T						
Health Program Area Nursing	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y 1	Y 2	Y 3	Y 4	Y 5
Medical	S						
	NS						
	CO						
	DS						
	T						
Dental	S						
	NS						
	CO						
	DS						
	T						
Psychological	S						
	NS						
	CO						
	DS						
	T						
Health Support Ser.	S						
	NS						
	CO						
	DO						
	T						
Business Program Area General Services	S						
	NS						
	CO						
	DS						
	T						
Pupil Transportation	S						
	NS						
	CO						
	DS						
	T						
Food Services	S						
	NS						
	CO						
	DS						
	T						
Facilities	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Fixed Charges	S						
	NS						
	CO						
	DS						
	T						
Business Support Services	S						
	NS						
	CO						
	DS						
	T						

Project	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
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Form #119: Proposed Operations and Capital Improvement Project Alternatives - Summary

1. Fill in the name of your intermediate unit or county office.

2. List the intermediate unit's primary objectives. These objectives are enumerated in Report #2. The objectives should be ranked from the most preferred to the least preferred. Place the rank order number in the column marked RO.

3. Assign a number to each Operations and Capital Improvement Project Alternative and place the number of each alternative in the cell at the top of each column.

4. Check off under each program the objectives you believe it will affect. Most programs will affect more than one objective.

5. Scan the form and develop Alternative Project Sets. Assign a capital letter to each Alternative Project Set. Record each set on a copy of Form #121 along with the cost for each Project Alternative from Y-1 through Y-5.

	FIVE-YEAR PLAN	PROPOSED PROJECT ALTERNATIVES - SUMMARY	

Educational Unit:

Objectives	R O	Project Alternative									
		#	#	#	#	#	#	#	#	#	#

Form #119

Form #120: Confirmed Revenue Estimate

1. Fill in the name of your intermediate unit or county office.

2. The estimate of revenues should be the most reliable estimate you can secure before you begin the process of selecting the "best" feasible alternative set of programs and projects. Review the estimate shown on Form #116 and update where necessary.

3. Examine the separate copies of Form #120 that show the total additional revenues that may be realized from proposed operations and capital improvements project alternatives for accuracy. (Additional revenues must be shown on the copy of Form #121.)

	FIVE-YEAR PLAN	CONFIRMED REVENUE ESTIMATE	

Educational Unit:

Fiscal Year Revenue Source	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5

Form #120

Form #121: Proposed Alternative Program and Project Set

1. Fill in the name of your intermediate unit or county office.

2. A form is filled out for each Alternative Program and Project Set. A set consists of any feasible combination of projects plus the Final Base Case program and projects. The superintendent develops these sets on the basis of staff consultation and his own knowledge of the intermediate unit.

3. Assign capital letters to the sets as they are assembled. Place this letter in the Alternative Program and Project Set Box.

4. Rank order the program sets and place the rank order number in the appropriate box.

5. Enter the Final Base Case costs for the current year through Y-5. This information can be found on Form #114.

6. Enter the Confirmed Revenue Estimate figures for the same years. This data can be found on Form #120.

7. Derive the differences between the Final Base Case costs and Confirmed Revenue Estimate figures. If the costs exceed or are less than the revenue figures show the deficit or surplus. A surplus can be carried forward.

8. Record each project alternative in the set. (This task should have been completed along with the other tasks for Form #119.) Show the added cost above the Final Base Case cost for Y-1 through Y-5 for each project alternative. Add the costs for all project alternatives from Y-1 through Y-5. If given projects will reduce annual operating costs place an asterisk (*) beside the project's name and the yearly grand project totals affected by the reduction in costs.

9. Add all of the additional revenues that would be realized from the project alternatives that are shown on copies of Form #120. Enter the totals for Y-1 through Y-5 in the cells opposite Total Additional Project Revenues. Subtract the additional revenue figures from the total for all project costs for each year from Y-1 through Y-5. Show the deficits and surpluses. Surpluses will result from those projects that are designed to reduce operating costs.

10. Add the Final Base Case and project deficits and surpluses together for each year.

11. Calculate the financial feasibility of the Proposed Alternative Program and Project Set by using Form #122.

12. Record the Indicators influenced by the Alternative Program and Project Set and their projected levels for each year. The Final Base Case levels may have to be adjusted to accommodate for the changes caused by the project alternatives. Worksheet #121.1 is provided for this purpose. The Final Base Case levels can be found on Form #108. The project alternatives must be calculated in accordance with the procedures outlined for Form #127.

13. Worksheet #121.2 is provided for the purpose of examining the manpower requirements for the Alternative Program and Project Set. The data on Form #115 for the Final Base Case should be combined with the additions or deletions in manpower used in arriving at the salary data shown on Forms #118 and #118.1 (see Worksheet #118.1 for each proejct). Be sure to reduce the Final Base requirements if one of the project alternatives requires such an adjustment.

14. You will eventually select the "best" Alternative Program and Project Set from the feasible sets you have examined. This set will contain the maximum number of high priority projects and expenditure levels for the programs and projects of the Final Base Case that can be funded under acceptable revenue constraints to achieve the primary objectives of the intermediate unit or county office.

15. Be sure the additional revenues realized through preferred or "best" project alternatives and the amounts from preferred revenue alternatives are incorporated into the Revenue Estimate on Form #129.

FIVE-YEAR PLAN		PROPOSED ALTERNATIVE PROGRAM AND PROJECT SET
Educational Unit:	Alternative Program and Project Set:	Rank Order Number:

Final Base Case Cost and Revenue Estimate	Fiscal Year					
	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Final Base Case Cost						
Confirmed Total Revenue Estimate						
(Deficit) or Surplus						
Program Alternative						
Total Added Annual Operating Costs						
Total Additional Project Revenues						
(Deficit) or Surplus						
Total (Deficit)or Surplus						

Fiscal Year Revenue Alternative	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5

Form #121

WORKSHEET #121.1

Form #121: Proposed Alternative Program and Project Set

Fiscal Year Indicator	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5

WORKSHEET #121.2

Form #121: Proposed Alternative Program and Project Set

Fiscal Year	Current Year	Y_1		Y_2		Y_3		Y_4		Y_5	
No.-Positions Position	Number Employed	NP	ST	NP	ST	NP	ST	NP	ST	NP	ST
Professional Admn. Superintendent											
Asst. Supt.											
Directors											
Assoc. Director											
Coordinator											
Professional Instr. Mentally Retarded Trainable - Ele.											
Mentally Retarded Trainable - Sec.											
Deaf											
Blind & Part.Sight.											
Physically Handcapped - Ele.											
Physically Handcapped - Sec.											
Mentally Retarded Educable - Ele.											
Mentally Retarded Educable - Sec.											
Gifted - Ele.											
Gifted - Sec.											
Emotionally & Soc. Maladj.-Ele.											
Emotionally & Soc. Maladj.-Sec.											
Brain Damaged											
Aphasic											
Detention Homes - Homebound											
Speech Correction (Itin.)											
Acoustically Handicapped (Itin.)											
Sight Conservation (Itin.)											
Gifted - Ele.(Itin)											
Gifted - Sec.(Itin)											

Fiscal Year	Current Year	Y_1		Y_2		Y_3		Y_4		Y_5	
No.-Positions / Position	Number Employed	NP	ST	NP	ST	NP	ST	NP	ST	NP	ST
Instr. Specialists											
English											
Guidance											
Language											
Mathematics											
Psychologist											
Science											
Social Studies											
Special Instr.											
Teachers Aid											
Technical Specialists											
Instr. Media											
Library Technician											
Programmer											
Research Asst.											
Systems Analyst											
Collateral Services											
Clerical											
Operation											
Maintenance											
Bus Drivers											
Food Service											
Other											
Total to be Hired		+		+		+		+		+	
Total Staff Required											

Worksheet #121.2

Page 2 of 2

Form #122: Financial Feasibility - Proposed Alternative Program and Project Set

1. Fill in the name of your intermediate unit or county office.
2. Add the Final Base Case Costs to the Total Added Annual Operating Costs of all proposed projects for Y-1 through Y-5 and enter the totals in the appropriate cells.
3. Add the confirmed Total Revenue Estimate figures to the alternative revenue and additional project revenues figures and enter the totals on the Form.
4. Derive the deficits or surpluses for each year.

	FIVE-YEAR PLAN	FINANCIAL FEASIBILITY - PROPOSED ALTERNATIVE PROGRAM AND PROJECT SET	

Educational Unit:

Fiscal Year / Set Costs and Revenue	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Combined Final Base Case and Project Cost						
Combined Revenue Estimate (Including Revenue Alternatives) & Proj. Revenues						
(Deficit) or Surplus						

Comments:

Form #122

Form #123: Capital Improvement Project

1. If no changes have taken place on capital improvement projects approved previously, and incorporated in the Final Base Case transfer the information from Form #110 to this form. If changes have taken place, please note them on this form and list any changes in parameter values used to recalculate expenditures.

2. Transfer all information forward from Form #118.1 on preferred capital improvement project(s) to this form.

3. Transfer all added revenue to Form #129: Revenue Estimate.

FIVE-YEAR PLAN	CAPITAL IMPROVEMENT PROJECT	

1. Project Title & Location

2. Project #

3. New Project? Yes ☐ No ☐

Revised Project? Yes ☐ No ☐

Estimated Useful Life ____Yrs.

Date Begin? ______________

Date Complete? ____________

Estimated Construction Cost? $__________________

4. Description & Justification

5. Added Major Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
TOTAL ADDED ANNUAL OPERATING COST						

6. Revenue Related To Added Operating Costs	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Less - Federal						
Less - State						
Less - Co. Commissioners						
Less - Others						
TOTAL REVENUE RELATED TO ADDED OPERATING COST						

Form #123

Form #124: Capital Program Summary

1. Fill in the name of your intermediate unit or county office.
2. Transfer the data from Form #123. If more than one capital improvement is involved, combine the data by program.

	FIVE-YEAR PLAN	CAPITAL IMPROVEMENT PROJECT(S) SUMMARY	

Educational Unit:

Fiscal Year / Program Area	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped-Elementary						
Physically Handicapped-Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Elem.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

Form #124

Page 1 of 2

FIVE-YEAR PLAN	CAPITAL IMPROVEMENT PROJECT(S) SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Ser.						
Annual Cost						
Total Annual Operating Cost						

Form #125: Program - Detail and
Form #125.1: Project - Detail

1. Use the following procedure to complete Form #125:

   a. If the information in the Final Base Case is unchanged, transfer the information from Form #112 to this form. If new projections have been made that alter the expenditure pattern for the programs describe these changes and enumerate the parameter values under the Program Description Section.

   b. Fill in the name of your intermediate unit or county office.

   c. Fill in the name of the Program Area, Program, and Program Manager. A form should be filled out for all twenty-three programs and each Special Instruction subprogram. You may wish to fill out a from for other subprograms.

   d. Circle the indicator(s) influenced by the program.

   e. In most cases, the box marked Continuing should be checked. However, it is possible that a program was begun last year or was instituted this year. Check the box marked Tentative in the former case or the box marked New in the latter case.

   f. List the primary objective for the program. Express the objective as clearly as possible and in a manner that will facilitate measurement of progress toward it.

   g. Write a comprehensive description of the program. The description should contain the following:

      (1) Concise general description of the content of the program and a listing of all related subprograms;

      (2) Clientele served by the program;

      (3) Number of professional and non-professional staff members by manpower category (see Form #128) employed in the program;

      (4) Plant committed to the program;

    (5) Description of the methods, procedures and techniques used to execute and control the program; and

    (6) Parameter values used in projecting the expenditures for the program.

2. Follow the procedure outlined below to complete Form #125.1:

    a. If the information is unchanged for operations projects that are established, and incorporated in the Final Base Case transfer the information forward from Form #112.1 to Form #125.1. Note any changes in the projected expenditure pattern and parameter values employed in these projections.

    b. Preferred operations project information is transferred from Form #118 to Form #125.1.

    c. Complete the form according to the instructions outlined for Form #125. Include additional revenues realized through the project in the appropriate spaces. Transfer the revenue information to Form #129: Revenue Estimate.

FIVE-YEAR PLAN	PROGRAM - DETAIL

Educational Unit:	Program Area:	Program:	Program Manager:

Subprogram:	Related Indicators: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6	Continuing ☐ Tentative ☐ New ☐

Fiscal Year Program	Y_1	Y_2	Y_3	Y_4	Y_5
Salary					
Non-Salary					
Capital Outlay					
Debt Service					
Total Annual Cost					

Program Objective:

Program Description:

Form #125

FIVE-YEAR PLAN	PROJECT - DETAIL

Educational Unit:	Project Title:	Project Manager:

Related Indicators:
1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7. 1.8,
2.1, 2.2, 2.3, 2.4, 2.5, 2.6

Continuing ☐
Tentative ☐
New ☐

Project Costs / Fiscal Year	Y_1	Y_2	Y_3	Y_4	Y_5
Salary					
Non-Salary					
Capital Outlay					
Debt Service					
Total Annual Cost					

Revenue Related to Annual Operating Costs / Fiscal Year	Y_1	Y_2	Y_3	Y_4	Y_5
Less - Federal					
Less - State					
Less - County					
Less - Other					
Total Revenue Related to Added Operating Cost (Transfer to Form #129)					

Project Objective:

Project Description:

Form #125.1

Form #126: Program and Project Summary and Form #126.1: Program Summary

1. Follow the directions below to complete Form #126:

   a. Fill in the name of your intermediate unit or county office.

   b. Transfer the totals forward from Forms #123, #125 and #125.1 to Worksheet #126.1. Add the Salary (S), Non-Salary (NS), Capital Outlay (CO), and Debt Service (DS) for each program and transfer the totals to Form #126.

2. Merge the operations and capital improvement project costs with the costs for the twenty-three basic programs on a second copy of Worksheet #126.1 and transfer the totals to Form #126.1. This form provides a useful way of presenting the general expenditure pattern to the school board and the public.

FIVE-YEAR PLAN	PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped-Elementary						
Physically Handicapped-Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

Form #126

FIVE-YEAR PLAN	PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #126

Page 2 of 3

FIVE-YEAR PLAN

PROGRAM AND PROJECT SUMMARY

Educational Unit:

Fiscal Year Project	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Project Total Annual Cost						
Program and Project Total Annual Cost						
Capital Improvement Project(s) Total Annual Cost						

Form #126

Page 3 of 3

	FIVE-YEAR PLAN	PROGRAM SUMMARY

Educational Unit:

Fiscal Year Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive						
Comprehensive Planning						
Information & Liaison						
Community Services						
Coordinative Support Ser.						
Annual Cost						
Instructional Program Area Early Childhood Instr.						
Elementary Instruction						
Secondary Instruction						
Voc.-Tech. Instruction						
Special Instruction						
Mentally Retarded Trainable - Elementary						
Mentally Retarded Trainable - Secondary						
Deaf						
Blind & Partially Sighted						
Physically Handicapped-Elementary						
Physically Handicapped-Secondary						
Mentally Retarded Educable - Elementary						
Mentally Retarded Educable - Secondary						
Gifted - Elementary						
Gifted - Secondary						
Emotionally & Socially Maladjusted - Ele.						
Emotionally & Socially Maladjusted - Sec.						
Brain Damaged						

	FIVE-YEAR PLAN	PROGRAM SUMMARY	

Educational Unit:

Fiscal Year / Program	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Aphasic						
Detention Homes - Homebound						
Speech Correction (Itin.)						
Acoustically Handicapped (Itin.)						
Sight Conservation (Itin.)						
Gifted - Ele. (Itin.)						
Gifted - Sec. (Itin.)						
Continuing Instruction						
Instr. Support Services						
Annual Cost						
Health Program Area Nursing						
Medical						
Dental						
Psychological						
Health Support Services						
Annual Cost						
Business Program Area General Services						
Pupil Transportation						
Food Services						
Facilities						
Fixed Charges						
Business Support Services						
Annual Cost						
Program Total Annual Cost						

Form #126.1

Page 2 of 2

WORKSHEET #126.1

Forms #126 and #126.1 - Program and Project Summary

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Coordinative Program Area Policy & Executive	S						
	NS						
	CO						
	DS						
	T						
Comprehensive Planning	S						
	NS						
	CO						
	DS						
	T						
Information and Liaison	S						
	NS						
	CO						
	DS						
	T						
Community Services	S						
	NS						
	CO						
	DS						
	T						
Coordinative Supp. Services	S						
	NS						
	CO						
	DS						
	T						
Instructional Program Area Early Childhood Instruction	S						
	NS						
	CO						
	DS						
	T						
Elementary Instr.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Secondary Instr.	S						
	NS						
	CO						
	DS						
	T						
Voc.-Tech. Instr.	S						
	NS						
	CO						
	DS						
	T						
Special Instruction Mentally Retarded Trainable - Ele.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Trainable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Deaf	S						
	NS						
	CO						
	DS						
	T						
Blind and Partially Sighted	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Ele.	S						
	NS						
	CO						
	DS						
	T						
Physically Handicapped - Sec.	S						
	NS						
	CO						
	DS						
	T						
Mentally Retarded Educable - Ele.	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Mentally Retarded Educable - Sec.	S						
	NS						
	CO						
	DS						
	T						
Gifted - Elementary	S						
	NS						
	CO						
	DS						
	T						
Gifted - Secondary	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Ele.	S						
	NS						
	CO						
	DS						
	T						
Emotionally & Soc. Maladj. - Sec.	S						
	NS						
	CO						
	DS						
	T						
Brain Damaged	S						
	NS						
	CO						
	DS						
	T						
Aphasic	S						
	NS						
	CO						
	DS						
	T						
Detention Homes - Homebound	S						
	NS						
	CO						
	DS						
	T						
Speech Correction (Itin.)	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Acoustically Handicapped (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Sight Conservation (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Ele. (Itin.)	S						
	NS						
	CO						
	DS						
	T						
Gifted - Sec. (Itin)	S						
	NS						
	CO						
	DS						
	T						
Continuing Instr.	S						
	NS						
	CO						
	DS						
	T						
Instructional Support Services	S						
	NS						
	CO						
	DS						
	T						
Health Program Area Nursing	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Medical	S						
	NS						
	CO						
	DS						
	T						
Dental	S						
	NS						
	CO						
	DS						
	T						
Psychological	S						
	NS						
	CO						
	DS						
	T						
Health Support Ser.	S						
	NS						
	CO						
	DS						
	T						
Business Program Area							
General Services	S						
	NS						
	CO						
	DS						
	T						
Pupil Transportation	S						
	NS						
	CO						
	DS						
	T						
Food Services	S						
	NS						
	CO						
	DS						
	T						
Facilities	S						
	NS						
	CO						
	DS						
	T						

Program	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
Fixed Charges	S						
	NS						
	CO						
	DS						
	T						
Business Support Services	S						
	NS						
	CO						
	DS						
	T						

Project	Cat.	Fiscal Year					
		Current Year	Y_1	Y_2	Y_3	Y_4	Y_5
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
	DS						
	T						
	S						
	NS						
	CO						
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	T						

Form #127: Calculations and Projections of Indicators - Detail and Form #127.1: Calculations and Projections of Indicators - Summary

1. Forms #127 and #127.1 have been provided for you to record the levels of each indicator. You can plot a single indicator on Form #127 or plot all indicators on Form #127.1. A finer scale can be used with Form #127 than with Form #127.1. Form #127 is useful in studying a single indicator. Form #127.1 enables you to see the gross trends of all indicators at one glance.

2. Each graph must show three projections: (a) transfer the Current Year through Y-5 plots shown on Forms #108 and #108.1; (b) plot the Y-1 through Y-5 Desired Levels incorporated in Report #2; and (c) plot the Y-1 through Y-5 Expected Levels according to the steps outlined on the worksheets listed below. Record the Expected Levels for each indicator on Worksheet #127.15.

    a. Indicator #1.1 - Worksheet #127.1
    b. Indicator #1.2 - Worksheet #127.2
    c. Indicator #1.3 - Worksheet #127.3
    d. Indicator #1.4 - Worksheet #127.4
    e. Indicator #1.5 - Worksheet #127.5
    f. Indicator #1.6 - Worksheet #127.6
    g. Indicator #1.7 - Worksheet #127.7
    h. Indicator #1.8 - Worksheet #127.8
    i. Indicator #2.1 - Worksheet #127.9
    j. Indicator #2.2 - Worksheet #127.10
    k. Indicator #2.3 - Worksheet #127.11
    l. Indicator #2.4 - Worksheet #127.12
    m. Indicator #2.5 - Worksheet #127.13
    n. Indicator #2.6 - Worksheet #127.14

3. Plot the indicator levels for the Current, Desired and Expected levels on Forms #127 and #127.1.

WORKSHEET #127.1

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detailed and Summary

Directions for Calculating Indicator #1.1

Percent of Identified Special Pupils Instructed by the Intermediate Unit (PSPI) - Defined as the total number of special pupils instructed by the intermediate unit (TNSPIU) plus the total number of special pupils instructed by agencies other than the intermediate unit (TNSPOA) divided by the total number of potential special pupils identified or estimated in the intermediate unit area (TNSPIA). Multiply the resulting quotient by 100.

Note:

1. If data is not available on the number of special pupils with a given problem who reside within the intermediate unit area, then use an estimate based on your experience. Use the same approach if data is not available on the number of special pupils being instructed by agencies other than the intermediate unit.

2. CY or Current Level has been calculated on Worksheet #105.1.

Step 1

Record below the TNSPIU, TNSPOA, and TNSPIA for each subprogram from Y-1 through Y-5:

Subprogram	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable-Elementary					
TNSPIU	____	____	____	____	____
TNSPOA	____	____	____	____	____
TNSPA	____	____	____	____	____
Mentally Retarded Trainable-Secondary					
TNSPIU	____	____	____	____	____
TNSPOA	____	____	____	____	____
TNSPA	____	____	____	____	____
Deaf					
TNSPIU	____	____	____	____	____
TNSPOA	____	____	____	____	____
TNSPA	____	____	____	____	____
Blind and Partially Sighted					
TNSPIU	____	____	____	____	____
TNSPOA	____	____	____	____	____
TNSPA	____	____	____	____	____
Physically Handicapped - Elementary					
TNSPIU	____	____	____	____	____
TNSPOA	____	____	____	____	____
TNSPA	____	____	____	____	____
Physically Handicapped - Secondary					
TNSPIU	____	____	____	____	____
TNSPOA	____	____	____	____	____
TNSPA	____	____	____	____	____
Mentally Retarded Educable - Elementary					
TNSPIU	____	____	____	____	____
TNSPOA	____	____	____	____	____
TNSPA	____	____	____	____	____

Mentally Retarded Educable - Secondary

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Gifted - Elementary

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Gifted - Secondary

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Emotionally & Socially Maladjusted - Elementary

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Emotionally & Socially Maladjusted - Secondary

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Brain Damaged

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Aphasic

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Detention Homes - Homebound

TNSPIU ____ ____ ____ ____ ____
TNSPOA ____ ____ ____ ____ ____
TNSPA ____ ____ ____ ____ ____

Speech Correction (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___

Acoustically Handicapped (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___

Sight Conservation (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___

Gifted - Elementary (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___

Gifted - Secondary (Itin.)

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___

____

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___

____

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___

____

TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPA	___	___	___	___	___
Total TNSPIU	___	___	___	___	___
Total TNSPOA	___	___	___	___	___
Total TNSPA	___	___	___	___	___

Step 2

Record below the total TNSPIU, TNSPOA, and TNSPIA for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
TNSPIU	___	___	___	___	___
TNSPOA	___	___	___	___	___
TNSPIA	___	___	___	___	___

Step 3

Use the following formula to calculate the PSPI for Y-1 through Y-5:

	(TNSPI	+	TNSPOA	/	TNSPA)	x	100	=	PSPI
Y-1	(_____	+	______	/	_____)	x	100	=	____
Y-2	(_____	+	______	/	_____)	x	100	=	____
Y-3	(_____	+	______	/	_____)	x	100	=	____
Y-4	(_____	+	______	/	_____)	x	100	=	____
Y-5	(_____	+	______	/	_____)	x	100	=	____

Step 4

Record these data on Worksheet #127.15.

WORKSHEET #127.2

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #1.2

Ratio of Special Pupils to Classroom Teachers (RSPCT) - Defined as the total number of special pupils (TNSP) divided by the total number of classroom teachers (TNCT).

Note:

1. Don't use data from the itinerant subprograms. A classroom teacher is a member of the professional staff who spends at least half-time in a regular classroom assignment.
2. Count a classroom teacher as one only if he spends 100 percent of his time in a regular classroom assignment, otherwise, count him as part of a classroom teacher, i.e., if he spends 75 percent of his time as a classroom teacher, then count him as .75 of a classroom teacher.
3. CY or Current Level has been calculated on Worksheet #105.2.

Step 1

Record below the TNSP and TNCT for each subprogram from Y-1 through Y-5.

Subprogram	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable-Elementary					
TNSP					
TNCT					
Mentally Retarded Trainable-Secondary					
TNSP					
TNCT					
Deaf					
TNSP					
TNCT					
Blind and Partially Sighted					
TNSP					
TNCT					
Physically Handicapped - Elementary					
TNSP					
TNCT					
Physically Handicapped - Secondary					
TNSP					
TNCT					
Mentally Retarded Educable - Elementary					
TNSP					
TNCT					
Mentally Retarded Educable - Secondary					
TNSP					
TNCT					

Gifted - Elementary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Gifted - Secondary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Emotionally & Socially Maladjusted - Elementary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Emotionally & Socially Maladjusted - Secondary					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Brain Damaged					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Aphasic					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
Detention Homes - Homebound					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
______________________					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___
______________________					
TNSP	___	___	___	___	___
TNCT	___	___	___	___	___

TNSP ____ ____ ____ ____ ____
TNCT ____ ____ ____ ____ ____

Total TNSP ____ ____ ____ ____ ____

Total TNCT ____ ____ ____ ____ ____

Step 3

Use the following Formula to derive the Y-1 through Y-5 RSPCT:

	TNSP	/	TNCT	=	RSPCT
Y-1	____	/	____	=	____
Y-2	____	/	____	=	____
Y-3	____	/	____	=	____
Y-4	____	/	____	=	____
Y-5	____	/	____	=	____

Step 3

Record these data on Worksheet #127.15.

WORKSHEET #127.3

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #1.3

Percent of Possible Subprograms Offered Special Pupils (PSOSP) - Defined as the total number of subprograms offered to special pupils for the school year (SOSP) divided by the total number of authorized subprograms (AS) minus the total number of subprograms for which special pupils have not been identified (SSPNI). Multiply the resulting quotient by 100.

Note:

1. CY or Current Level has been calculated on Worksheet #105.3.

Step 1

Record below the SOSP and SSPNI for each subprogram from Y-1 through Y-5.

Subprogram	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable-Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Mentally Retarded Trainable-Secondary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___

Deaf					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Blind and Partially Sighted					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Physically Handicapped - Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Physically Handicapped - Secondary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Mentally Retarded Educable - Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Mentally Retarded Educable - Secondary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Gifted - Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Gifted - Secondary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Emotionally & Socially Maladjusted - Elementary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___

Emotionally & Socially Maladjusted - Secondary					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Brain Damaged					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Aphasic					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Detention Homes - Homebound					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Speech Correction (Itin.)					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Acoustically Handicapped (Itin.)					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Sight Conservation (Itin.)					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Gifted - Elementary (Itin.)					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Gifted - Secondary (Itin.)					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
______________________________					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___

____________________					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
____________________					
SOSP	___	___	___	___	___
SSPNI	___	___	___	___	___
Total SOSP	___	___	___	___	___
Total SSPNI	___	___	___	___	___

Step 2

Record below the total AS figures for Y-1 through Y-5:

AS

Y-1 ____________

Y-2 ____________

Y-3 ____________

Y-4 ____________

Y-5 ____________

Step 3

Use the following formula to derive the PSOSP for Y-1 through Y-5:

	(SOSP	/	AS	-	SSPNI)	x	100	=	PSOSP
Y-1	(____	/	____	-	_____)	x	100	=	_____
Y-2	(____	/	____	-	_____)	x	100	=	_____
Y-3	(____	/	____	-	_____)	x	100	=	_____
Y-4	(____	/	____	-	_____)	x	100	=	_____
Y-5	(____	/	____	-	_____)	x	100	=	_____

Step 4

Record these data on Worksheet #127.15.

WORKSHEET #127.4

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #1.4

Ratio of Special Pupils to Specialists and Supervisors (RSPSS) - Defined as the total number of special pupils (TNSP) divided by the total number of specialists and supervisors (TNSS).

Note:

1. The following specialists and supervisors are included: psychiatrist, emotionally disturbed surpervisor, speech and hearing supervisor, psychological and physically handicapped supervisor, trainable supervisor, and gifted supervisor.
2. Count a specialist or supervisor as one only if he spends 100 percent of his time in practicing his specialty or supervising, otherwise, count him as part of a specialist or supervisor; i.e., if he spends 75 percent of his time as a specialist or supervisor, then count him as .75 of a specialist or supervisor.
3. CY or Current Level has been calculated on Worksheet #105.4.

Step 1

Record below the TNSP and TNSS for each subprogram for Y-1 through Y-5.

Subprogram	Y-1	Y-2	Y-3	Y-4	Y-5
Mentally Retarded Trainable-Elementary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___

Mentally Retarded Trainable-Secondary

TNSP ____ ____ ____ ____ ____

Deaf

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Blind and Partially Sighted

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Physically Handicapped - Elementary

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Physically Handicapped - Secondary

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Mentally Retarded Educable - Elementary

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Mentally Retarded Educable - Secondary

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Gifted - Elementary

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Gifted - Secondary

TNSP ____ ____ ____ ____ ____
TNSS ____ ____ ____ ____ ____

Emotionally & Socially Maladjusted - Elementary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Emotionally & Socially Maladjusted - Secondary					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Brain Damaged					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Aphasic					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Detention Homes - Homebound					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Speech Correction (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Acoustically Handicapped (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Sight Conservation (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Gifted - Elementary (Itin.)					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___

Gifted - Secondary (Itin.)

TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
____________________					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
____________________					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
____________________					
TNSP	___	___	___	___	___
TNSS	___	___	___	___	___
Total TNSP	___	___	___	___	___
Total TNSS	___	___	___	___	___

Step 2

Use the following formula to derive the Y-1 through Y-5 RSPSS:

	TNSP	/	TNSS	=	RSPSS
Y-1	___	/	___	=	___
Y-2	___	/	___	=	___
Y-3	___	/	___	=	___
Y-4	___	/	___	=	___
Y-5	___	/	___	=	___

Step 3

Record these data on Worksheet #127.15.

WORKSHEET #127.5

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #1.5

Net Total Expenditures Per Special Pupil (NTESP) - Defined as the net total expenditures (NTE) divided by the total number of special pupils (TNSP).

Note:

1. Subtract tuition payments to in-state and out-of-state school systems, districts, jointures, or institutions (Account Numbers 1481, 1482, 1483, 1484, 1485, 1486, 1487 and 1488) from the total expenditures for the General Fund to determine the NTE.
2. The CY or Current Level has been calculated on Worksheet #105.5.

Step 1

Record below the NTF and TNSP for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
NTE	___	___	___	___	___
TNSP	___	___	___	___	___

Step 2

Calculate the NTESP by using the following formula:

	NTE	/	TNSP	=	NTESP
Y-1	____	/	____	=	_____
Y-2	____	/	____	=	_____
Y-3	____	/	____	=	_____
Y-4	____	/	____	=	_____
Y-5	____	/	____	=	_____

Step 3

Record these data on Worksheet #127.15.

WORKSHEET #127.6

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #1.6

Ratio of Processed Case Load to Case Clinic Personnel (RPCLCCP) - Defined as the total number of completely processed cases (TNCPC) divided by the total number of professional case clinic personnel (TNPCCP) responsible for processing cases.

Note:

1. Professional personnel are defined as all individuals associated with and/or involved in the diagnosis and/or treatment provided by the clinic.
2. The CY or Current Level has been calculated on Worksheet #105.6.

Step 1

Record below the total school district enrollment (TE) for CY through Y-5 shown on Form #101:

	Y-1	Y-2	Y-3	Y-4	Y-5
TE	___	___	___	___	___

Step 2

Record below the total number of completely processed cases of the clinic (Current Level) from Worksheet #105.6:

TNCPC ________________

Step 3

Calculate the ratio of TE to TNCPC (RTETNCPC) for CY by using the following formula:

TE / TNCPC = RTETNCPC

____ / ____ = ________

Step 4

Divide the TE for Y-1 through Y-5 by the RTETNCPC to calculate the TNCPC for each year:

	TE	/	RTETNCPC	=	TNCPC
Y-1	____	/	_______	=	______
Y-2	____	/	_______	=	______
Y-3	____	/	_______	=	______
Y-4	____	/	_______	=	______
Y-5	____	/	_______	=	______

Step 5

Record below the CY or Current Level TNPCCP from Worksheet #105.6:

TNPCCP ______________

Step 6

If an operations and/or capital improvement projects increases the TNPCCP this increase should be shown below:

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNPCCP	____				
Y-1	Increase	+____				
Y-1	TNPCCP	____	____			
Y-2	Increase		+____			
Y-2	TNPCCP		____	____		
Y-3	Increase			+____		
Y-3	TNPCCP			____	____	
Y-4	Increase				+____	
Y-4	TNPCCP				____	____
Y-5	Increase					+____
Y-5	TNPCCP					____

Step 7

Calculate the Y-1 through Y-5 RPCLCCP by using the following formula:

	TNCPC	/	TNPCCP	=	RPCLCCP
Y-2	____	/	____	=	______
Y-3	____	/	____	=	______
Y-4	____	/	____	=	______
Y-5	____	/	____	=	______

Step 8

Record these data on Worksheet #127.15.

WORKSHEET #127.7

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #1.7

Number of Cases Waiting to be Processed by the Clinic (NCWPC) - Defined as the total number of cases waiting to be processed by the professional and non-professional personnel of the clinic at the end of the school year.

Note:

1. Professional and non-professional personnel of the clinic are defined as all personnel associated with and/or involved in the diagnosis and/or treatment by the clinic.
2. The CY or Current Level has been calculated on Worksheet #105.7.

Step 1

Record below the total school district enrollment (TE) for CY through Y-5 shown on Form #101:

	Y-1	Y-2	Y-3	Y-4	Y-5
TE	___	___	___	___	___

Step 2

Record below the CY or Current Level NCWPC from Worksheet #105.7:

NCWPC ________________

Step 3

Calculate the ratio of TE to NCWPC (RTENCWPC) for CY by using the following formula:

TE / NCWPC = RTENCWPC

____ / _____ = ________

Step 4

Divide the TE by the RTENCWPC for each year from Y-1 through Y-5 to calculate the NCWPC:

TE / RTENCWPC = NCWPC

Y-1 ______ / ________ = ________

Y-2 ______ / ________ = ________

Y-3 ______ / ________ = ________

Y-4 ______ / ________ = ________

Y-5 ______ / ________ = ________

Step 5

Record these data on Worksheet #127.5.

WORKSHEET #127.8

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #1.8

Ratio of Assessment Case Load to Assessment Personnel (RACLAS) - Defined as the total number of assessment cases (TNAC) divided by the total number of assessment personnel (TNAP) responsible for assessing pupils.

Note:

1. Professional personnel are defined as all individuals associated with and/or involved in the assessment of pupils for entrance into or exit from special instruction programs or for other educational pruposes.
2. The CY or Current Level has been calculated on Worksheet #105.8.

Step 1

Record below the total school district enrollment (TE) for CY through Y-5 shown on Form #101:

	Y-1	Y-2	Y-3	Y-4	Y-5
TE	___	___	___	___	___

Step 2

Record below the CY or Current TNAC from Worksheet #105.8:

TNAC _______________

Step 3

Calculate the ratio of TE to TNAC (RTETNAC) for CY by using the following formula:

TE / TNAC = RTETNAC

____ / ____ = ________

Step 4

Divide the TE for Y-1 through Y-5 by RTETNAC to calculate the TNAC for each year:

	TE	/	RTETNAC	=	TNAC
Y-1	____	/	________	=	____
Y-2	____	/	________	=	____
Y-3	____	/	________	=	____
Y-4	____	/	________	=	____
Y-5	____	/	________	=	____

Step 5

Record below the CY or Current Level TNAP from Worksheet #105.8:

TNAP ________________

Step 6

If an operations and/or capital improvement project increases the TNAP this increase should be shown below:

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNAP	___				
Y-1	Increase	+___				
Y-1	TNAP	___	___			
Y-2	Increase		+___			
Y-2	TNAP		___	___		
Y-3	Increase			+___		
Y-3	TNAP			___	___	
Y-4	Increase				+___	
Y-4	TNAP				___	___
Y-5	Increase					+___
Y-5	TNAP					___

Step 7

Calculate the Y-1 through Y-5 RACLLAS by using the following formula:

	TNAC	/	TNAP	=	RACLLAS
Y-1	___	/	___	=	___
Y-2	___	/	___	=	___
Y-3	___	/	___	=	___
Y-4	___	/	___	=	___
Y-5	___	/	___	=	___

Step 8

Record these data on Worksheet #127.15.

WORKSHEET #127.9

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #2.1

Ratio of School District's Professional Staff to the Intermediate Unit's Professional Staff (RSDPSIUPS) - Defined as the total number of school district professional staff (TNSDPS) divided by the total number of intermediate unit professional staff (TNIUPS).

Note:

1. Professional staff includes classroom teachers, instructional specialists, technical specialists, and administrators.
2. The CY level has been calculated on Worksheet #105.9.

Step 1

Record below the weighted pupil enrollment-staff (WPE-S) for CY through Y-5 from Form #101:

	CY	Y-1	Y-2	Y-3	Y-4	Y-5
WPE-S	___	___	___	___	___	___

Step 2

Record below the TNSDPS figure for the Current Level from Worksheet #105.9:

TNSDPS ______________

Step 3

Calculate the ratio of WPE-S to TNSDPS (RPPS) for CY by using the following formula:

WPE-S / TNSDPS = RPPS

_____ / ______ = ____

Step 4

Divide the WPE-S for Y-1 through Y-5 by the RPPS to determine the TNSDPS for each year:

	WPE-S	/	RPPS	=	TNSDPS
Y-1	_____	/	____	=	______
Y-2	_____	/	____	=	______
Y-3	_____	/	____	=	______
Y-4	_____	/	____	=	______
Y-5	_____	/	____	=	______

Step 5

It may be necessary to alter the TNSDPS figures for Y-1 through Y-5 if specific information is available on added professional staff because of operations and/or capital improvement projects. Add these figures below:

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNSDPS	___				
Y-1	Added	+___				
Y-1	TNSDPS	___	___			
Y-2	Added		+___			
Y-2	TNSDPS		___	___		
Y-3	Added			+___		
Y-3	TNSDPS			___	___	
Y-4	Added				+___	
Y-4	TNSDPS				___	___
Y-5	Added					+___
Y-5	TNSDPS					___

Step 6

Record below the total number of special pupil classroom teachers (TNCT) and total number of specialists and supervisors (TNSS) for Y-1 through Y-5 from Worksheet #108.2 and #108.4 and take the CY figure for all other intermediate unit professional personnel (AOPS) and hold it constant from Y-1 through Y-5. Add these figures together to derive the TNIUPS for each year.

	Y-1	Y-2	Y-3	Y-4	Y-5
TNCT	___	___	___	___	___
TNSS	___	___	___	___	___
CY-AOPS	___	___	___	___	___
TNIUPS	___	___	___	___	___

Step 7

If operations and/or capital improvement projects add to the AOPS figures for Y-1 through Y-5 these additions must be taken into account. Show these increases below:

		Y-1	Y-2	Y-3	Y-4	Y-5
CY	TNIUPS	___				
Y-1	Added	+___				
Y-1	TNIUPS	___	___			
Y-2	Added		+___			
Y-2	TNIUPS		___	___		
Y-3	Added			+___		
Y-3	TNIUPS			___	___	
Y-4	Added				+___	
Y-4	TNIUPS				___	___
Y-5	Added					+___
Y-5	TNIUPS					___

Step 8

Calculate the RSDPSIUPS for Y-1 through Y-5 by using the following formula:

	TNSDPS	/	TNIUPS	=	RSDPSIUPS
Y-1	______	/	______	=	__________
Y-2	______	/	______	=	__________
Y-3	______	/	______	=	__________
Y-4	______	/	______	=	__________
Y-5	______	/	______	=	__________

Step 9

Record these data on Worksheet #127.15.

WORKSHEET #127.10

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #2.2

Percent of Instructional Materials Requests Served by the Instructional Materials Center (PIMRS) - Defined as the total number of satisfied instructional materials requests made by the school district professional personnel (TNIMRS) divided by the total number of instructional materials requests of school district personnel (TNIMR). Multiply the resulting quotient by 100.

Note:

1. Professional personnel includes classroom teachers, instructional specialists, technical specialists, and administrators.

Step 1

Record below the CY or Current Level PIMRS from Worksheet #105.10 and hold it constant through Y-5 unless an operations and/or capital improvement project is designed to alter the CY level of this indicator. If a change is expected, record the expected levels below:

CY PIMRS __________

Y-1 PIMRS __________

Y-2 PIMRS __________

Y-3 PIMRS __________

Y-4 PIMRS __________

Y-5 PIMRS __________

Step 2

Record these data on Worksheet #127.15.

WORKSHEET #127.11

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #2.3

Percent of Total Dollar Expenditures for Research and Development (PTDERD) - Defined as the total dollars expended for research and development (TDERD) divided by the total dollar expenditure (TDE). Multiply the resulting quotient by 100.

Note:

1. All costs associated with projects concerned with the design and development of educational methods and techniques utilized in the operation of the school district or intermediate unit.

2. The CY or Current Level has been calculated on Worksheet #105.11.

Step 1

Record below the TDERD and TDE figure for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
TDERD	___	___	___	___	___
TDE	___	___	___	___	___

Step 2

Use the following formula to derive the Y-1 through Y-5 PTDERD figures:

	(TDERD	/	TDE)	x	100	=	PTDERD
Y-1	(_____	/	____)	x	100	=	_______
Y-2	(_____	/	____)	x	100	=	_______
Y-3	(_____	/	____)	x	100	=	_______
Y-4	(_____	/	____)	x	100	=	_______
Y-5	(_____	/	____)	x	100	=	_______

Step 3

Record these data on Worksheet #127.15.

WORKSHEET #127.12

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #2.4

Percent of Total Dollar Expenditures for Direct Services to School Districts (PTDEDSSD) - Defined as the total dollars expended for direct services to school districts (TDEDSSD) divided by the total dollar expenditures (TDE). Multiply the resulting quotient by 100.

Note:

1. Direct services include expenditures for all services rendered directly to school districts except those involving research and development.
2. The CY or Current Level has been calculated on Worksheet #105.12.

Step 1

Record below the TDEDSSD and TDE figures for Y-1 through Y-5:

	Y-1	Y-2	Y-3	Y-4	Y-5
TDEDSSD	___	___	___	___	___
TDE	___	___	___	___	___

Step 2

Use the following formula to derive the Y-1 through Y-5 PTDEDSSD figures:

(TDEDSSD / TDE) x 100 = PTDEDSSD

Y-1 (________ / ____) x 100 = __________

Y-2 (________ / ____) x 100 = __________

Y-3 (________ / ____) x 100 = __________

Y-4 (________ / ____) x 100 = __________

Y-5 (________ / ____) x 100 = __________

Step 3

Record these data on Worksheet #127.15.

WORKSHEET #127.13

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #2.5

Professional Staff Turnover Rate in Percent Per Year (PSTR) - Defined as number of professional staff separations (NPSS) for a given fiscal year divided by total professional staff budgeted for that year (TPS). Multiply the resulting quotient by 100.

Note:

1. Professional staff includes classroom teachers, instructional specialists, technical specialists, and administrators.
2. The CY or Current Level is shown on Worksheet #105.13.

Step 1

Record the CY or Current Level PSTR and hold it constant through Y-5 unless an operations project has been designed to change the level of this indicator. Record these changes below:

CY PSTR ____________

Y-1 PSTR ____________

Y-2 PSTR ____________

Y-3 PSTR ____________

Y-4 PSTR ____________

Y-5 PSTR ____________

Step 2

Record these data on Worksheet #127.15.

WORKSHEET #127.14

Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Directions for Calculating Indicator #2.6

Percent of Professional Staff With Masters Degree or More (PPSMDM) - Defined as the number of professional staff at the beginning of a given fiscal year with at least a masters degree (NPSMDM), divided by total professional staff budgeted for that year (TPS). Multiply the resulting quotient by 100.

Note:

1. Professional staff include classroom teachers, instructional specialists, and administrators.
2. The CY or Current Level is shown on Worksheet #105.14.

Step 1

Record the CY or Current Level PPSMDM and hold constant through Y-5 unless an operations project has been designed to change the level of this indicator. Record these changes below:

CY PPSMDM __________

Y-1 PPSMDM __________

Y-2 PPSMDM __________

Y-3 PPSMDM __________

Y-4 PPSMDM __________

Y-5 PPSMDM __________

Step 2

Record these data on Worksheet #127.15.

WORKSHEET #127.15

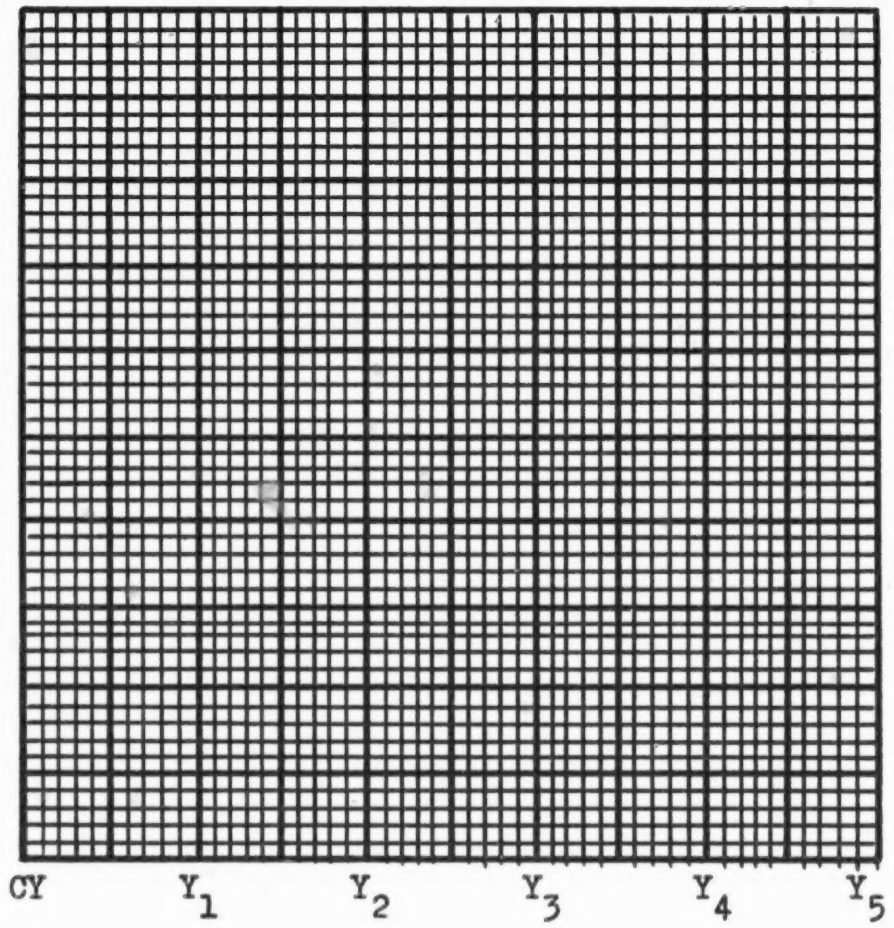
Forms #127 and #127.1 - Calculations and Projections of Indicators - Detail and Summary

Indicator	Fiscal Year					
	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5

FIVE-YEAR PLAN	CALCULATIONS AND PROJECTIONS OF INDICATORS - DETAIL

Educational Unit:

Indicator:	Legend: CL DL EL



Form #127

	FIVE-YEAR PLAN	CALCULATIONS AND PROJECTIONS FOR BASE CASES - SUMMARY	
Educational Unit:		Legend: CL DL EL	

Indicator	Scale	Fiscal Year					
		CY	Y_1	Y_2	Y_3	Y_4	Y_5

Form #127.1

Form #128: Manpower Requirements

1. Fill in the name of your intermediate unit or county office.

2. Combine the data from Forms #123, #125 and #125.1 of the preferred Alternative Program and Project Set. If the set allows for reduction in the number of positions and personnel from the Final Base Case be certain this reduction has been taken into account. Adjust the turnover figures if the total number of positions in the various categories have increased or decreased.

FIVE-YEAR PLAN | MANPOWER REQUIREMENTS

Educational Unit:

Fiscal Year	Current Year	Y_1		Y_2		Y_3		Y_4		Y_5	
# of Pos. / Position	Number Employed	NP	ST	NP	ST	NP	ST	NP	ST	NP	ST
Professional Adm.											
Superintendent											
Asst. Supt.											
Directors											
Assoc. Director											
Coordinator											
Professional Instr.											
Mentally Retarded Trainable - Ele.											
Mentally Retarded Trainable - Sec.											
Deaf											
Blind & Part.Sight.											
Physically Handicapped - Ele.											
Physically Handicapped - Sec.											
Mentally Retarded Educable - Ele.											
Mentally Retarded Educable - Sec.											
Gifted - Ele.											
Gifted - Sec.											
Emotionally & Soc. Maladj. - Ele.											
Emotionally & Soc. Maladj. - Sec.											
Brain Damaged											
Aphasic											
Detention Homes - Homebound											
Speech Correction (Itin.)											
Acoustically Handicapped (Itin.)											
Sight Conservation (Itin.)											
Gifted-Ele.(Itin.)											
Gifted-Sec.(Itin.)											

FIVE-YEAR PLAN	MANPOWER REQUIREMENTS

Educational Unit:

Fiscal Year	Current Year	Y_1		Y_2		Y_3		Y_4		Y_5	
No. of Pos. Position	Number Employed	NP	ST	NP	ST	NP	ST	NP	ST	NP	ST
Instr. Specialists											
English											
Guidance											
Language											
Mathematics											
Psychologist											
Science											
Social Studies											
Special Instr.											
Teachers Aid											
Technical Specialists											
Instr. Media											
Library Technician											
Programmer											
Research Asst.											
Systems Analyst											
Collateral Services											
Clerical											
Operation											
Maintenance											
Bus Drivers											
Food Service											
Other											
Total to be Hired		+		+		+		+		+	
Total Staff Required											

Form #128

Page 2 of 2

Form #129: Revenue Estimate

1. Fill in the name of your intermediate unit or county office.

2. Record the revenue source and the estimated amounts from the following forms for CY through Y-5: (a) Form #120 - Confirmed Revenue Estimate for CY through Y-5; and (b) Form #121 - Revenue Alternatives and additional revenue realized through operations and capital improvement projects.

FIVE-YEAR PLAN

REVENUE ESTIMATE

Educational Unit:

Fiscal Year Revenue Source	Current Year	Y_1	Y_2	Y_3	Y_4	Y_5

Form #129

Report #3: Five-Year Plan and Programs

This is a comprehensive report to the intermediate unit or county board of school directors on the recommended Five-Year Plan. The report is submitted to the board for their consideration and approval. The report will contain the programs and projects of the Final Base Case and the preferred operations and capital improvement project alternatives. The detailed budget for the coming fiscal year can be constructed from this report.

The format employed in this report is a matter of personal taste; however, effective communications with the board should be the primary consideration. It is necessary that the board fully understand the Five-Year Plan in terms of the resource allocation decisions and revenue estimates employed in its construction.

The first section of the report should deal with the factors contributing to change in the intermediate unit or county office over the next five years. The problems related to these changes should also be discussed. The primary objectives of the intermediate unit and the "real-world" limiting conditions should be introduced at this point. A summary of the highlights of the Five-Year Plan and how it is designed to fulfill these objectives should follow.

Indicator levels should be explained and illustrated. The Current, Desired and Expected Levels can be shown on a single graph for each indicator. The Current Level provides a reference point for the board and staff; the Desired Level, the aspirations of the board and staff; and the Expected Level, the best educated judgment of obtainable reality by the board and staff.

Revenue recommendations should be reviewed and discussed in conjunction with the general discussion concerning the financial aspects of the Five-Year Plan. A detailed revenue estimate should be included at the end of the report.

All the salient points of the Analysis and Summarization of the Final Base Case Report should be summarized and presented at this point. This summary should be followed by a summary report of the expenditures for all programs over the next five-year period. This summary should be supported by a detailed estimate of expenditures by program and project over the same period. A detailed five-year estimate of revenues will conclude the report.

The following forms provide information for conducting the report and they can be displayed in the report:

1. Form #101: Enrollment Forecast - School Districts
2. Form #104: New Enrollment Forecast - Special Education
3. Form #123: Capital Improvement Project
4. Form #124: Capital Improvement Project Summary
5. Form #125: Program - Detail
6. Form #125.1: Project - Detail
7. Form #126: Program and Project Summary
8. Form #126.1: Program Summary
9. Form #127: Calculations and Projections of Indicators - Detail
10. Form #127.1: Calculations and Projections of Indicators - Detail
11. Form #128: Manpower Requirements
12. Form #129: Revenue Estimate

APPENDIX A

PLANNING-PROGRAMMING-BUDGETING SYSTEM PROCEDURE PROGRAM AND PROJECT CLASSIFICATION

The Defense Department initially applied PPBS to major weapon systems programs. A weapon systems program is conceived of as a project with an initiation and a termination. It is a series of activities which add to an existing military establishment. In the terminology utilized in this document a weapon system program, no matter how large, is a "project". No doubt the Defense Department adopted the word "program", because their large efforts involved many activities which were already called "projects".

For reasons which are not clear the application of PPBS in the non-defense areas has used a slightly different definition of a program. A program here is an attempt to identify a series of continuing activities which form a part of the organization. Thus, at the beginning of every PPBS design, there is a major effort to identify an (usually hierarchial) organization of programs and subprograms which are treated as permanent. The program hierarchy is a way of breaking up the organization which is not necessarily coincident with the formal organization and which, presumably, ties activities to a specific objective. This definition of program as a portion of the continuing organizational activities probably evolves because public systems, unlike weapons systems, are continuing, politically entrenched organizations, presumably fulfilling a continuing need.

Parenthetically, the difficulties involved in trying to come up with a useful program hierarchy, one on which everyone can agree, and which has a one-to-one correspondence between programs and objectives, is so difficult that many PPBS installation projects bog down at this point.

Furthermore, assuming that programs are continuing contradicts one of the basic purposes of PPBS, namely to facilitate the exploration of new activities (and of reducing old) to better attain objectives. There may be an improvement in thinking of incremental changes to objective-oriented programs rather than to organizational departments. But this is certainly a minor change compared to the capability of considering completely new combinations of activities.

What is needed is a method of handling PPBS program definition which will have the following characteristics:

1. It will recognize the fact that there are continuing activities in public systems. The programs will continue after PPBS is adopted, at least for a while. Furthermore these activities form a basis for most peoples' conceptualization of the system. It is, therefore, necessary to summarize the activities of the organization in terms of these categories.

2. The system must permit new activities to be added. The new projects may cut across the existing activities and should be kept separate from existing programs. This is necessary to facilitate control of the new activity, either because funding sources for the activity are separate, or because the activity contributes to objectives in a different way from the continuing programs.

In order to develop a system which will meet these criteria it is necessary to define two kinds of activity, each associated with one of the above characteristics; programs are associated with continuing activities, projects with establishment of new activities. The distinction between programs and projects is critical to an understanding of the PPB procedure:

Program - a program is a collection of continuing activities, (1) which are sufficiently routine and accepted to be carried on unless there is a specific decision by the board or superintendent to discontinue them, (2) which some specific segment of the present school organization has responsibility for undertaking, (3) which have a specific relationship to more than one objective, and (4) which for this reason are divisible into subprograms.

Project - a project is related to new activities (1) which are non-routine, less familiar, and not continuing, (2) which have a specific beginning and closing date, (3) which are outside the formal organizational structure, (4) which generally relate to a single explicit objective, (5) which normally relate to change and innovation, (6) for which performance involves high risk to the organization, and (7) which are not normally divisible into sub-projects.

PPBS may be based on programs, on projects or on a combination of both.

Program Approach

There are seven major approaches to the classification of an organization's activities, each of which yields a different classification structure. These are:

1. Purpose - A purpose classification emphasizes primary, secondary, and tertiary objectives proceeding from the most general or primary objective to the most specific or tertiary objectives which must be accomplished within "real-world" constraints.

2. Process - The sequence of components which must be completed to achieve a single result may also be the basis of classification.

3. Resource - The accounting classification by which individual objects of expenditure are aggregated into general classes of resource allocation is a classification system common in school districts and other governmental organizations.

4. Organization - The authority pattern in organization is a frequent approach to classification which in effect shows the organizational units to which responsibility for accomplishment of various activities is assigned.

5. Location - The geographic locations at which different activities of the organization are conducted may also be the basis of the classification approach.

6. Clients - In service agencies, the different types of clients served may be reflected in the classification. For instance, the requirements of certain school children for special education or vocational-technical education.

7. Functions - Similar types of activities, such as maintenance services or clerical services may be grouped together in a classification.

While each of these approaches to classification provides a somewhat different perspective, they are all directly involved in planning the work of an organization. Thus, to achieve a particular purpose may require one or several different processes; a particular process may require the utilization of a variety of resources; the utilization of a particular resource may involve several organizational units; the fulfillment of an organization responsibility may require action at several different locations; service to a client may involve a variety of functions, and; carrying out a function may help to achieve several different purposes. Actually, each of these seven different approaches are necessary to fully define each action carried out within an organization. As a practical matter however, the permutations of these seven factors in an actual organization yields such a large classification matrix as to be useless in practice. For instance, a typical middle sized school district which applied each of the classification approaches in the detail commonly used in education could derive a classification structure with more than ten million individual classes. In addition, since each one of these classification approaches is ordinarily in a constant state of change it would be necessary to make major revisions every year. Consequently, it is essential to greatly simplify the program classification while at the same time relating the program classification to each of the seven different classification approaches.

Guidelines for Program Classification

A number of general guidelines have been used in designing a simplified program classification for use by local shcool districts and intermediate units. These guidelines are as follows:

1. The program classification must be useful to the policy and executive personnel in the school district in multi-year planning.
2. The program classification must be adaptable to both small and large school districts and to intermediate units or counties.
3. The program classification must be within the capability of school districts to meet the data requirements necessary for determining or estimating costs of programs.
4. The program classification must allow for easy translation into the accounting and budgeting classifications required by the Pennsylvania Department of Public Instruction.

The *Manual of Accounting and Related Financial Procedures for Pennsylvania School Systems* published by the Department of Public Instruction (DPI) is followed by the majority of local districts in their budgetary and expenditure accounting. This manual defines the official accounting classification. See Appendix B for the detailed accounts. In design of the program classification special attention was given to make it as easy as possible to convert from the program classification.

Program Classification

The program classification shown below has four major areas: Coordinative Program Area, Instructional Program Area, Health Program Area, and Business Program Area. Within these four program areas are included twenty-three different programs. A number of illustrated subprograms are shown. This classification is based on functions, and, within functions, on client grouping.

It is anticipated that some of the subprograms shown will not be utilized by intermediate units and school districts. It is also anticipated that intermediate units and school districts will add many subprograms, such as, elementary mathematics, elementary language arts, secondary general science, etc.

The relationship of the proposed program classification to the DPI accounting classification can be illustrated by reference to the Facilities Program. Our Subprogram Operation and Maintenance of Plant is the same as the 0600 Operation and Maintenance of Plant function in the Pennsylvania Department of Public Instruction classification.

1. Coordinative Programs Area
    a. Policy and Executive Program
    b. Comprehensive Planning Program
        (1) Long Range Development Planning Subprogram
        (2) Planning-Programming-Budgeting Subprogram
    c. Information and Liaison Program
    d. Community Services Program
    e. Coordinative Support Services Program
        (1) Program Development and Evaluation Subprogram
        (2) Professional Education Subprogram
        (3) Secretarial and Clerical Service Subprograms
2. Instructional Programs Areas
    a. Early Childhood Instruction Program
    b. Elementary Instruction Program
    c. Secondary Instruction Program
    d. Vocational-Technical Instruction Program
    e. Special Instruction Program
    f. Continuing Instruction Program

- g. Instructional Support Services Program
  - (1) Instructional Media Subprogram
  - (2) Pupil Assessment-Guidance Subprogram
  - (3) Attendance Services Subprogram
  - (4) Program Development and Evaluation Subprogram
  - (5) Professional Education Subprogram
  - (6) Secretarial and Clerical Services Subprogram

3. Health Program Area
   - a. Nursing Program
   - b. Medical Program
   - c. Dental Program
   - d. Psychological Program
   - e. Health Support Services Program
     - (1) Program Development and Evaluation Subprogram
     - (2) Professional Education Subprogram
     - (3) Secretarial and Clerical Services Subprogram
4. Business Program Area
   - a. General Services Program
     - (1) Finance Subprogram
     - (2) Personnel Subprogram
     - (3) Purchasing Subprogram
     - (4) Communications Subprogram
     - (5) Data Processing Subprogram
   - b. Pupil Transportation Program
   - c. Food Services Program
   - d. Facilities Program

    (1) Operation and Maintenance of Plant Subprogram

    (2) Capital Improvement Subprogram

    (3) Debt Service Subprogram

e. Fixed Charges Program

f. Business Support Services Program

    (1) Program Development and Evaluation Subprogram

    (2) Professional Education Subprogram

    (3) Secretarial and Clerical Services Program

In the program-oriented approach one does not talk about the changes in the programs in terms of specific added or subtracted activities, since such changes are projects. In the program-oriented approach the level of activity should be determined by planning ratios. For example, if we are dealing with a program of elementary education, we talk about regular teachers per student, or expenditure for books and materials per student. A program change would then consist of the changing of these ratios. An example of a program change is to reduce the student-teacher ratio in elementary education from thirty to twenty-five. The educational consequences of this change would be explored by computing the staff requirements, costs and the changes in objectives and indicators.

At the highest level of management, and before specific project ideas have been developed, this sort of program planning might be most appropriate. One system has actually been developed for state level planning of educational activities using exactly this approach. The decision-makers can set desired levels for ratios applicable to each program and can assign priorities indicating which of these desired levels they would most like to attain. The program then allocates available resources so as to improve the ratios toward the desired level, giving emphasis to those which have been given highest priority.

The main deficiency of this approach is that it does not permit the decision-maker to manipulate specific activities or collections of activities. After deciding to increase the manpower in elementary education, say, the very next question is what will this manpower do? This immediately leads to the question of projects.

Project Approach

The organization resulting from a project-oriented approach may appear similar to that of the program-oriented approach, though a project approach will normally involve a larger number of smaller scale group of activities. Further, projects are considered individually. For example, a remedial reading program might well contribute to elementary education, but in the pure-project method the concept of elementary education as a totality is not involved. The organization is conceived of as a series of activities such as first grade reading, first to sixth grade remedial reading, physical training, and so on.

In planning, projects are added and subtracted. The goal is to find that collection of new and modified projects which contribute most to the total objective of the educational unit at the least cost. Project development and modification both involve estimates of cost (additional manpower, fixed equipment, and supplies) and estimates of the extent to which objectives of the educational unit will be better achieved. Of these estimates, the anticipated improvement in meeting objectives is the more subjective and may require a broader range of professional judgments.

The disadvantage of this approach is that it is hard to get an overall view of how the organization will operate. Any real organization might, under this method, consist of hundreds of projects. It is hard to see how they relate, what kind of interactions there might be, and it is hard to present the results of planning to the decision makers and to the community, who do not have the time to study each project in detail.

A Mixed Approach

In order to obtain the advantages of both the program and project-orientation, the EPPBS System described in this document utilizes a mixed approach. This approach recognizes that there are continuing programs, that they will continue for some time into the future, and that most people view the organization in terms of these continuing programs. On the other hand, it recognizes that there is a desire to keep many activities separate, for organizational or financial reasons, and that it is more desirable to facilitate the addition of activities as separate entities. For this reason, all new activities are automatically designated as projects. It is essential to maintain close administrative review of changes resulting from new activities; by defining these changes as projects such review is made possible.

The expenditures summary for such an approach would include both programs and projects. However, the program activities would be forecasted solely on the basis of ratios and the project activities on the basis of specific project design. Planning would then consist of finding that combination of ratio changes and new projects which provide the greatest feasible increase in performance.

In order to provide decision-makers and community with a format familiar to them, provision has been made for allocating each project cost back into the program costs. Therefore, two kinds of reports are envisioned: (1) a program and project report which shows each basic program (minus all project activity) separately plus each individual project separately; and (2) an integrated program report which shows effects of adding the project effort into each program.

In this integrated report each program encompasses all of the activities which normally relate to it, including project activities. In order to produce this integrated program report some information is necessary which is not required in either the pure program or the pure project effort. The projects must be described so that it is clear how each project can be re-allocated to programs. For example, in a school district, a remedial reading project would be stated so that some of its costs (some salaries, etc.) would be identified as part of the elementary education program and other costs as part of the, say, instructional support program. This provides the basis for the integrated program report. It also means that if a given project were to be designated by the superintendent as part of the continuing programs, it would be clear how to allocate the project's activities.

It is true that programs are forecast on the basis of ratios and projects on the basis of a specific design. However, since integrating projects into programs occurs at the end of the planning process, after forecasts have been made and planning decisions taken, there is no problem in summarizing the project costs into the program costs. In each instance you are primarily concerned with dollar costs. Thus to facilitate the production of program reports, a matrix, or "crosswalk" needs to be prepared. This matrix shows how to allocate each of the project costs to the program costs.

APPENDIX B

GENERAL FUND

CHART OF STANDARD EXPENDITURE ACCOUNTS
(Revised 10/31/68)

0100 ADMINISTRATION

0111 Salaries, Board Officials
0112 Salaries, Educational Administration
0113 Salaries, Business Administration
0114 Salaries, Legal Services
0115 Salaries, Tax Collection

0121 Materials and Supplies, Administration
0124 Materials and Supplies, Legal Services
0125 Materials and Supplies, Tax Collection

0131 Expenses, Administration
0134 Expenses, Legal Services
0135 Expenses, Tax Collection

0151 Contracted Auditing Services
0154 Contracted Legal Services
0155 Contracted Tax Collection Services
0159 Other Contracted Services for Administration

0200 INSTRUCTION

0211 Salaries, Principals
0212 Salaries, Supervisors or Coordinators
0213 Salaries, Teachers
0214 Salaries, Librarians
0216 Salaries, Other Instructional Staff
0218 Salaries, Instructional Assistants
0219 Salaries, Secretarial, Clerical, Other Personnel

0221 Textbooks
0222 Teaching Supplies
0223 Library Books and Supplies
0224 Audiovisual Materials
0229 Other Materials and Supplies for Instruction

0231 Expenses, In-Service Training
0239 Expenses, Other, for Instruction

0250 Contracted Services for Instruction

0300 PUPIL PERSONNEL SERVICES

0311 Salaries, Directors, Coordinators, Supervisors
0312 Salaries, Attendance Personnel
0313 Salaries, Guidance and Psychological Personnel
0319 Salaries, Clerical and Other Classified Personnel

0320 Materials and Supplies, Pupil Personnel Services

0330 Expenses, Pupil Personnel Services

0350 Contracted Services, Pupil Personnel Services

0400 HEALTH SERVICES

0411 Salaries, Directors, Coordinators, Supervisors
0412 Salaries, Physicians and Psychiatrists
0413 Salaries, Nurses
0414 Salaries, Dentists and Hygienists
0415 Salaries, Other Professional Health Personnel
0416 Salaries, Non-Public School Health
0418 Salaries, Clerical, Non-Professional Dental Services
0419 Salaries, Clerical, Non-Professional Medical & Other

0421 Materials and Supplies, Dental
0422 Materials and Supplies, Medical & Others

0431 Expenses, Dental
0432 Expenses, Medical and Other
0433 Expenses, Non-Public School Health

0445 Equipment (Replacement) for Health Services

0451 Contracted Dental Services
0452 Contracted Medical & Other Services
0453 Contracted Services, Non-Public School Health

0500 PUPIL TRANSPORTATION SERVICES

0511 Salaries, Supervisors
0512 Salaries, Drivers
0513 Salaries, Mechanics, Other Garage Employees
0519 Salaries, Clerical and Other Employees

0521 Transportation Vehicles, Gasoline and Oil
0523 Transportation Vehicles, Repair Parts, Materials and Supplies
0529 Other Materials and Supplies

0531 Automotive Liability Insurance
0532 Other Pupil Transportation Insurance
0533 Transportation Rental
0539 Other Transportation Expenses

0546 Transportation, Replacement of Vehicles & Equipment

0551 Contracted Maintenance, Transportation Vehicles & Equipment
0553 Contracted Maintenance, Office, Garage, Grounds
0555 Board and Lodging in Lieu of Transportation
0556 Contracted Carriers
0557 Public Carriers Fares

0600 OPERATION AND MAINTENANCE OF PLANT

0611 Salaries, Supervisors
0612 Salaries, Operation and Maintenance
0619 Salaries, Clerical and Others for Operation and Maintenance

0621 Operation and Maintenance Supplies
0622 Fuel for Buildings

0631 Utilities
0639 Other Expenses for Operation and Maintenance of Plant

0641 Equipment Built Into Sites
0642 Equipment Built Into Buildings
0643 Equipment, Instructional
0644 Equipment, Non-Instructional

0650 Contracted Services for Operation and Maintenance

0800 FIXED CHARGES

0831 School System Contributions to Employee Retirement
0832 School System Share of Social Security Taxes
0833 Workmen's Compensation Insurance
0834 Employee Insurance
0835 Fire Insurance
0836 Other Insurance
0837 Judgments Against the School System
0838 Rent of Capital Facilities and Equipment
0839 Other Fixed Charges

0900 FOOD SERVICES

0961 Contribution to the Cafeteria Fund
0962 Contribution to the Cafeteria Fund for Undernourished Children

1000 STUDENT ACTIVITIES

1010 Salaries, Student Activities

1020 Materials and Supplies, Student Activities

1030 Expenses for Student Activities

1048 Equipment (Replacement), Student Activities

1050 Contracted Services for Student Activities

1063 Contributions to Student Activities Fund(s)

1100 COMMUNITY SERVICES

1110 Salaries, Community Services

1120 Materials and Supplies, Community Services

1130 Expenses, Community Services

1149 Equipment (Replacement) for Community Services

1150 Contracted Community Services

1200 CAPITAL OUTLAY

1210 Salaries, Capital Outlay Projects

1241 Land
1242 Buildings
1243 Equipment, Instructional
1244 Equipment, Non-Instructional
1245 Equipment, Health Services
1246 Equipment, Pupil Transportation
1247 Equipment, Food Services
1248 Equipment, Student Activities
1249 Equipment, Community Services

1265 Capital Reserve Fund Transfers Under Section 690 of the School Code
1266 Capital Reserve Transfers Under Section 2932 of the School Code

1300 DEBT SERVICE

1371 Authority Rentals
1372 Interest, Revenue Anticipation Loans
1373 Interest, Improvement and Equipment Loans
1374 Sinking Fund Principal Payments

1375 Sinking Fund Interest Payments
1379 Refunds of Prior Years' Receipts

1400 INTERSYSTEM PAYMENTS

1481 Payments to Area Technical Schools and Special Program Jointures
1482 Payments to Pennsylvania School Systems
1483 Payments to Out-Of-State School Systems
1484 Payments to Special Schools
1485 Payments for County Operated Classes for Exceptional Children
1486 Payments to State College Laboratory Schools
1487 Payments to Community Colleges
1488 Payments to Community Colleges for Area Vocational-Technical School Pupils

APPENDIX C

INTERMEDIATE UNIT INFORMATION AND DATA FILE REQUIREMENTS

Listed below are the major data files and their contents. Each are essential to an expeditious cycling of the PPB Procedure. Insofar as it is possible, the information and data items should be collected prior to the beginning of the actual implementation of the PPBS Procedure and placed in a file folder. A folder should be set up for each file listed in this Appendix. One or more letters precedes each data or information item, viz: C (current), E (expected), and P (projected). The letter C designates the most current items. The letter E designates items that were used last school year when preparing the current year's budget; if you can't locate these items leave it blank. The letter P designates items that should be available for the current year and each of the succeeding five years.

1. Operations Data File - Provides a storage location for data relating to indicators and contains the following items:

   (C,E) a. Total number of pupils requiring special services in the intermediate unit service area,

   (C,E) b. Total number of pupils being serviced by the intermediate unit classes,

   (C,E) c. Total number of pupils being serviced by local school district classes and other agencies,

   (C,E) d. Total number of intermediate unit classroom teachers (equivalent) in itinerant programs,

   (C,E) e. Total number of pupils in intermediate unit operated itinerant programs,

   (C,E) f. Total number of intermediate unit classroom teachers (equivalent) in full-time, regular special education programs,

   (C,E) g. Total number of pupils in intermediate unit operated full-time, regular special instruction programs,

   (C,E) h. Total number of special pupil services offered through the intermediate unit, (C,E) i. Total number of special pupil services offered by local district,

(C,E) j. Total number of specialists or supervisors of special education on county staff,

(C,E) k. Total dollar expenditures for special pupil curriculum materials, supplies and library books,

(C,E) l. Net total expenditures for special education,

(C,E) m. Total number of staff separations of professional special education personnel,

(C,E) n. Total number of special education professional personnel,

(C,E) o. Number of professional staff in special education with MA degree or more,

(C,E) p. Total number of special pupils integrated into regular classrooms,

(C,E) q. Total number of school district professional personnel within intermediate unit service area,

(C,E) r. Total number of intermediate unit professional personnel,

(C,E) s. Total number of available man-hours of intermediate unit professional personnel,

(C,E) t. Total number of man-hours consumed in contacts with local district personnel,

(C,E) u. Total dollars spent by the intermediate unit on programs concerned with the design and development of educational techniques and methods,

(C,E) v. Total dollars spent by intermediate unit in direct services to local districts,

(C,E) w. Total number of professional staff separations of intermediate unit professional staff, and

(C,E) x. Total number of intermediate unit professional staff with MA degree or more.

2. Planning File - Provides the PPBS Procedure with a current record of the intermediate unit's long range commitments and expectations. The file contains the most current Five-Year Plan and the following items:

   a. All current budgets and budgetary requests -

      (1) County Commissioner's Budget,

      (2) Federal project budgets for which the intermediate unit is the agent responsible for receiving and disbursing funds,

      (3) Direct service budgets other than federal project budgets, e.g., Regional Instructional Materials Center's Budget,

      (4) Special Education budget for intermediate unit operated classes, and

      (5) Other budget-like requests for funds, e.g., commissioned officers salaries;

   b. Goals and objectives statements -

      (1) Goals which were used in the development of the current annual budget,

      (2) Objectives which were used in the development of the current budget, and

      (3) Program objectives which were used in the development of the current budget; and

   c. Any multi-year plans developed for any of the intermediate unit programs, e.g., the Special Education Plan required by the Department of Public Instruction.

3. Organizational Policy File - Provides a listing of the major policies that will influence the development of the Final Base Case and the Five-Year Plan and Programs. The File should contain the following items:

   (C) a. Student/teacher ratio policy (special education),

   (C) b. Policy for accepting special pupils,

   (C) c. Policy on intermediate unit-local district division of responsibilities for special education programs,

(C) d. State special education policy with regard to class size, number of classes, and costs per classroom

(C) e. Staff qualification policies, and

(C) f. Other major policies which you feel will place a constraint on developing the Final Base Case and the Five-Year Plan.

4. Problem Identification File - Provides a storage location for problems that have been identified within the intermediate unit. The file should contain brief written statements identifying the nature of educational management, and/or capital program problems which the intermediate unit is facing. A problem is defined as an undesired situation.

5. Program Idea File - Provides a storage location for suggested program changes and innovations. The file should contain the following:

   a. A list of ideas for specific program changes or new programs which the intermediate unit is considering as a part of its overall commitment to the region it serves, and

   b. A list of ideas for specific program changes or new programs which the local school districts feel the intermediate unit should consider for implementation.

6. Regional Characteristics File - Provides storage location for specific information for describing and assessing changes in the region and may contain the following information:

   a. Regional attitudes regarding specific programs,

   b. Regional attitudes regarding the educational and service efforts of the intermediate unit, and

   c. Information on socio-economic characteristics of the region.

7. Demographic File - Provides a storage location for student enrollment forecasts and student characteristics. The file should contain at least the following:

   (P) a. Local district enrollment for kindergarten through twelfth grade and local district special education enrollment (elementary and secondary),

(P) b. Local school district average daily membership,

(C,E,P) c. Enrollment in intermediate unit special education classes by type of program, and

(P) d. Final Base Case indicator levels by school district.

8. Revenue Date File - Provides a storage location for revenue data items. The file sould contain the following:

(C) a. Expected revenue for current year from assessment of local school districts for direct services,

(C) b. Salary of all commissioned officers and portion paid by state and by local school districts,

(C) c. Expected revenue from local districts to cover salaries of personnel not assigned to any other revenue source, e.g., mathematic curriculum specialist whose salary is paid entirely by local school district.

(C) d. Expected federal revenue for each federal project for each year the project is expected to continue, and

(C) e. Expected revenue from County Commissioners.

9. Cost Factors File - Provides a listing of factors which can be used in accounting for intermediate unit expenditures over a given period of time. The file should contain the following items:

(C) a. Average special education classroom teacher's salary for itinerant classes,

(C) b. Average special education classroom teacher's salary for full-time, regular classes,

(C) c. Average salary for new entrants into all other position categories,

d. Compounded inflation rates you may wish to use, and

e. Any specific cost factors which you may want to apply to intermediate unit accounts other than the average cost which would be calculated from your current budget, e.g., the cost factors which are required by the Department of Public Instruction in calculating expenditures for special education.

10. Personnel Factors File - Provides a storage location for personnel information to the development of the Final Base Case and Five-Year Plan and Programs. The following items should be inlcuded:

(C) a. Number of personnel in each position category,

(C) b. Number of unfilled positions,

(C) c. Number of personnel who retired at end of the previous school year,

(E) d. Expected percentage retiring, i.e., what percentage of all personnel will retire in a "typical" school year,

(C) e. Number of personnel who resigned at end of the previous school year,

(E) f. Expected percentage retiring, i.e., what percentage of all personnel will resign in a "typical" school year, and

(E) g. Estimated number of special education classroom teachers you could hire in any one year - separate itinerant from regular.

11. Capital Improvement File - Provides a storage location for information on capital improvements, to which the intermediate unit is committed. The file should contain the following:

a. Number and type of facility,

(E) b. Debt service costs,

(E) c. Number of administrative personnel to be added,

(E) d. Number of support personnel to be added,

(E) e. Number of instructional support people to be added, and

(E) f. Year in which facility will be opened.

APPENDIX D

A GENERAL METHOD OF ESTIMATING FUTURE SCHOOL ENROLLMENTS AS A FUNCTION OF COMMUNITY GROWTH

Introduction

Since school enrollment is required by law and education is publicly in high esteem, it is appropriate to view school enrollment trends in the aggregate, both public and private, as a reflection of community development. On a year to year basis, it is reasonable to anticipate next year's enrollments by comparison with this year's enrollments, as is commonly done. For longer range estimates, community characteristics have also to be considered. In the middle time range of, say, five years (to which this effort is addressed), changes in community housing supply have to be considered along with probable changes in the percentage of pupils attending public school. In the long run, changes in the characteristics of population behavior, such as birth rates, have also to be considered in concert with the changing housing supply.

In developing a method of estimate that is appropriate for all the school districts of the Commonwealth of Pennsylvania, it is necessary to work with data that is available in all districts. Housing data is generally not available in rural areas and is of uneven quality where it is available. It would be useful to have good information by small area for housing data. Birth statistics are deceptive or questionable where boundaries of post office districts, municipalities, and school districts do not coincide.

The reliable data that can be made avaliable include census information on population age distribution and recent school enrollment counts, although the latter may need adjustment to reflect changes in school district boundaries and to accomplish a proper assignment of private school pupils by grade to public school district of residence.

In order to proceed on this data base, it needs to be shown that population growth is highly conditioned by changes in number of households so that comparison of actual and expected enrollment trends may be interpreted to indicate changes in number of households. Granted this, it may then be assumed that prospective changes in household growth are related to recent changes so that future enrollment trends can be calculated to be consistent with expected household development.

Some observations on these matters are presented later. Before burdening the reader with this detail, however, a variety of limitations and cautions should be brought to his attention.

1. Adequate effort must be devoted to developing the basic information on current and recent enrollment of district residents.

2. Enrollments, if any, from institutions should be considered separately and held constant or altered in line with institutional plans. The main analysis should be based on changes in enrollments from the district's households.

3. In college towns, boarding students are counted as town residents; and this analysis will tend to understate population growth in these towns and other areas where institutions, such as prisons and hospitals, have sizeable numbers of inmates not of school age.

4. While the averages employed in this method of calculation are statistically well defined, they are only averages; and district deviations are to be expected. The estimates derived are statements of feasible growth; but the limits of what is feasible are not defined. Anything from a building boom to total desolation is possible.

5. What is termed household change in this report is actually only an index of household change. Housing statistics, which usually deal with the number of dwellings authorized to be built, may or may not correspond well with the index of household change. There may be important questions about demolitions, vacancy rates, incomplete reporting, changes in builder's plans, time lags, and household sizes. The index of household change is calculated as a function of migratory population 5-19 years old, i.e., about 1.65 such persons are estimated per net additional household. Since change in number of households is estimated from the development of enrollment trends and distributions, the index relates most specifically to changes in households served by the school systems, though this relationship is fogged by undefined historical factors implying some further realtionship between school households and other households in the community.

Since concern is with district students, enrolled in district public schools, and resident in households, there are actually many accounting categories, of which eight are of major concern.

1. District students
    a. Household residents
        (1) In own public schools
        (2) In other public schools
        (3) In private schools
    b. Institutional residents
        (4) In own public schools
        (5) In other public schools
        (6) In private schools
2. Other district students
        (7) In own public schools
        (8) In other schools

In multi-district accounting, all these categories would be of significance. However, from the point of view of one district, considerable simplification can be introduced. Institutional and other district students in own schools (categories 4 and 7) may be lumped under the heading of tuition students and categories 5, 6, and 8 can probably be ignored in most cases. Four categories remain to be accumulated at the district level - 1, 2, 3, and 4 plus 7. These can be pictured as shown in Figure I.

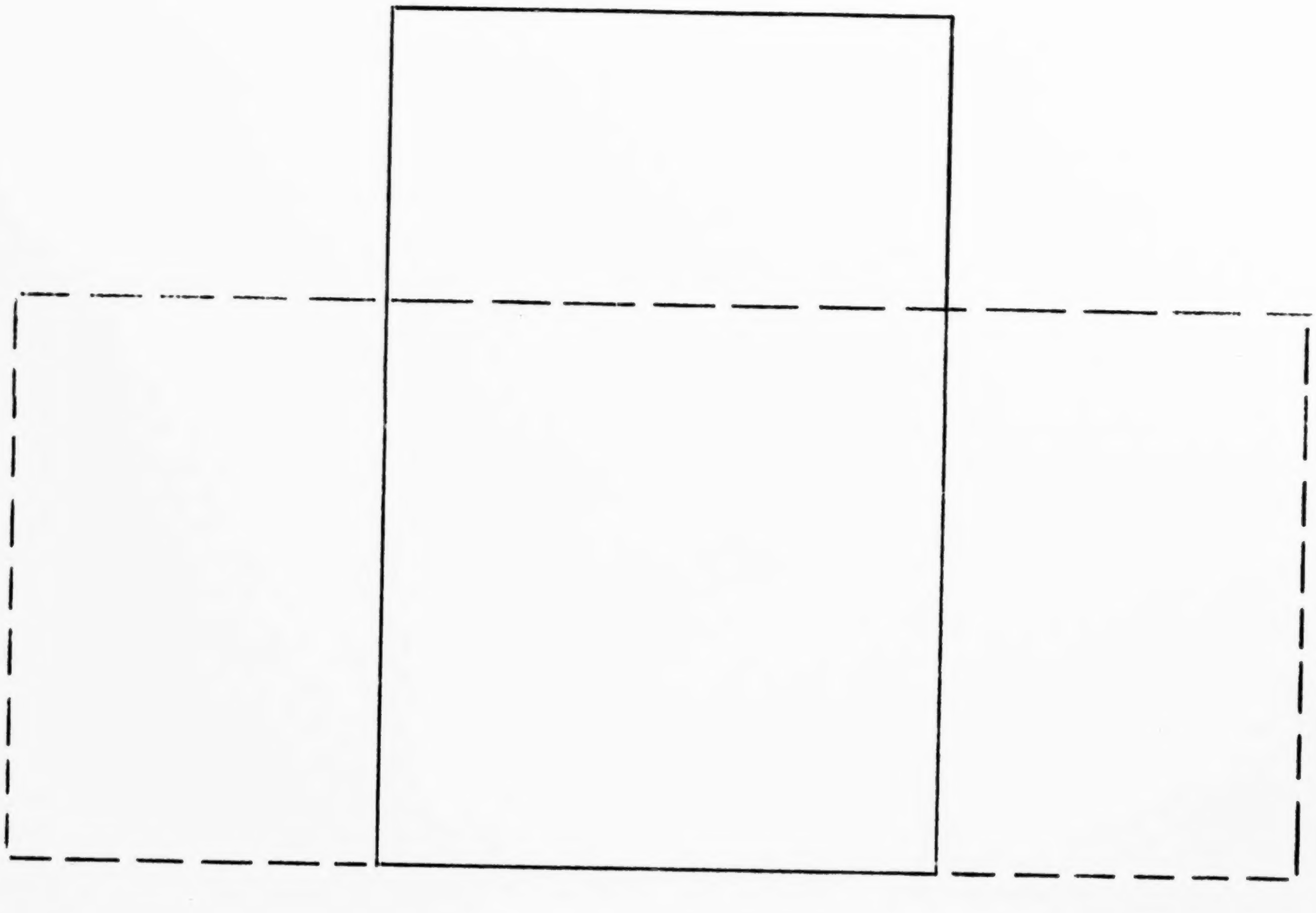


FIGURE 1. Our District Enrollment

Data should be conveniently available for categories 1, 3, 4, and 7. The assignment of private school students by public school district of residence will require the cooperation of private school administrators and may represent a considerable task. This task was undertaken in 1967-68 by private schools in and near Bucks County with the result that about 1,000 additional Bucks County residents were enumerated beyond what had been known before. The work resulted in significant changes in estimates of percentage of pupils attending public school in many districts. At the present time, public school enrollments are responding to rapidly changing percentages of total enrollment. Many districts are growing at rates unsustainably high in the long run, rates which are incorporated in any empirically dervied set of public school retention ratios. Work with data on hand for some districts, which happen to claim no private school enrollment, indicates a possible need for better assignment of private school students by public school district of residence.

Errors in assignment of private school students, as a practical matter, may lead to crisis situations in the utilization of school plant. To be specific, some elementary children in a district may attend a private school located in another district but subsequently turn up in their own district's high school. Unless they are correctly accounted for to begin with, their appearance on the roll in high school may be something like a "bolt out of the blue" since their arrival will not have been heralded by any quickening of community development.

As far as this method of analysis is concerned, errors in this assignment of private school students will lead directly to false indications regarding trends in migratory growth and household development, trends which can occur without much alteration of the physical landscape where families are doubling up or taking advantage of slack in the housing supply. The effect of such an error in the analytical scheme has delayed impact since allowance for future household development is made in proportion to what appears to have taken palce in the recent past.

Members of the post war baby boom are now maturing into housing market as they generate additional child-bearing households. It has been assumed that (1) where household declines are indicated in the present period (1965-70), 80 percent of the reduction will be recovered between 1970 and 1975; and (2) where household increases are established for the present period, greater increases (20 percent) are to be accommodated in the near future. If indications of household change relate to vagueness in pupil accounting, accuracy of estimate is problematical. The importance of a proper accounting, to begin with, is clearly evident. Since schools represent a major public investment at the local level, it would be reasonable to require periodic reports on the residence of private school pupils by public school district. For this estimating procedure data should be secured for the current year and for 1965.

Ideally, enrollment figures should reflect youngsters actually in school as of April 1, which is the target date of the U. S. Census count of population. Such data are not readily available, historically and for all school districts. Since the focus in the present effort is on the development of estimates over the next five years, it is reasonable to take an average of fall enrollments to approximate the situation in April. It may be noted parenthetically that fall enrollments, say those of October 1, closely approximate active roll figures.

Since it is required that a routine method be developed which is generally applicable, it follows that the analysis must depend on recently established behavioral averages. These averages are certainly not constants descriptive of physical time and space. At a given time the behavior of populations in different districts will not be uniform; and within a given district, one year will not be a carbon copy of the previous one. Differences in racial composition and housing expense, for instance, not to mention variations in housing development as regards apartments and single family dwellings, are likely to be associated with differences in family composition and household stability. The averages employed, however, are either quite stable as between 1950 and 1960 or, if derived by multiple linear regressions, they are of very high statistical significance. While correlation indices higher than 99 percent characterize all relations, the variables are intercorrelated (80 percent or higher) and interpolation of correlation coefficient is therefore questionable. However, the estimating constants have reasonable signs and values. The errors of estimation are relatively small and approximate a normal distribution, that is, there are many small errors and a few large errors with some of the larger errors compensating other larger errors and some of the smaller errors compensating other smaller errors.

Outline and Justification of Estimating Procedure

To begin with, the data on hand included 1960 population by five year age group, as reported by the U. S. Census, and estimates of April 1 active roll, public and private, by grade for the years 1965 and 1968.

The first set of calculations yields an estimate of school enrollments to be expected in 1965 from the 1960 population as if it were constrained to the same number of households as reported in 1960. The estimated and actual enrollment distributions are then compared to yield an index of household change.

The next set of calculations carries the analysis in similar fashion to 1970 with regard to enrollments to be expected from a constant household supply. An estimate of 1968 enrollments is then derived by interpolation between the actual 1965 enrollments and the estimates for 1970. The comparison of estimated and actual enrollments for 1968 again provides an index of household change, which is extrapolated to indicate allowance for household change for the whole period, 1965-70.

Expected household gain for 1970-75 is defined in terms of growth allowed for 1965-70, as previously described. Population and enrollment figures are then defined for 1975 to be consistent with the anticipated trend in households. The program allows for arbitrary definition of the number of households to be expected in 1970-75.

School age population and enrollments for the intervening years are derived by interpolation of the population figures and printed out for each year and for grades 1-12; and the public share is assumed constant between 1968 and 1973.

It is recommended that kindergarten enrollments be estimated in relation to total first grade enrollments with allowance being made for percent in public school and anticipated program changes. Since the law does not require attendance at kindergarten, statistical relations are lacking for estimating prospective growth of kindergarten enrollments. It would seem reasonable for the short run of, say, a year or two, to develop estimates by interviewing the student body as to the number of younger children apt to enter school, adjusting the findings to allow for younger children in families whose youngsters are attending non-public school and to guard against duplicate reporting by students who are members of the same family. A well designed sample would probably save some effort in this regard. In those districts which are also geographically well defined by municipal and post office district boundaries, reference to birth statistics may also be appropriate.

The estimating procedure requires that the joint distribution of school age population by grade be known and reasonably stable. The legal requirement of school enrollment and the social desire for education combine to make one expect a basically stable distribution. The actual distribution for 1960 is shown in Table I and has been incorporated into the estimating procedure. The reported distribution enables one to estimate school enrollment if age distribution is known or to estimate age distribution if school enrollments are known.

TABLE I

JOINT DISTRIBUTION OF POPULATION BY AGE GROUP AND SCHOOL LEVEL, PENNSYLVANIA, 1960 TOTAL POPULATION - ALL SCHOOLS

	Grade groups				
Age groups	1-3	4-6	7-9	10-12	1-12
5-9	.6055	.1368	-	-	.7423
10-14	.0139	.4747	.4759	.0128	.9773
15-19	.0062	.0062	.1120	.5615	.6859
20-24	.0003	.0013	.0039	.0213	.0268

Source: Detailed Characteristics, Pennsylvania, Vol. PC(1)-40D, U. S. Census of Population, 1960, Table 101, p. 562.

These frequencies do not add up to 1.000 for each age group since some youngsters are either not in school or are enrolled in grades outside the range considered. Some 5-9 year olds are enrolled in kindergarten; and some 15-19 year olds are enrolled in college.

This estimating procedure also requires that population age distribution and school enrollment be highly conditioned by changes in number of households. Based on a random sample of 20 counties, it would appear that this condition was met between 1950 and 1960 in Pennsylvania. The question may be put as follows: given the populations 0-4 years of age in 1950 in 20 counties and also the changes in the number of households in these counties, what is the best weighting of these factors to yield an estimate of any county's 1960 10-14 year olds, how good is this estimate, and could it reasonably be taken as merely a chance relationship?

The method of analysis is multiple linear regression and it is designed to yield errors such that the sum of their squares is a minimum as compared by any other set of errors resulting from a different weighting of the factors. Sixteen relations have been defined, and the weightings of the factors are all of very high statistical significance being at least three times greater than their standard errors. Statistical significance indicates the likelihood of selecting a random sample from a population not characterized by the derived relationships which sample would, none the less, tend to establish the observed relationships equally as well or better. The finding is that less than three out of a thousand randomly drawn samples from such a population would yield results favorably comparable to what has actually turned up. Thus we can be reasonably sure that the observed relations don't depend on the selection of the sample.

The sample of 20 counties was selected from an alphabetical listing of Pennsylvania counties by means of a table of random numbers. It includes the following counties: Adams, Armstrong, Beaver, Bedford, Bradford, Chester, Clarion, Clearfield, Crawford, Dauphin, Forest, Indiana, Lawrence, Mifflin, Monroe, Northampton, Northumberland, Synder, Venango, and Warren.

The findings of this research are listed in Table II, which includes, besides the weightings of the factors, an arbitrary constant and the standard error of the estimate expressed both as a number of people and as a percentage of the mean of the values being estimated. A standard error indicates the maximum error for two-thirds of the observations under ideal conditions.

The arbitrary constant represents something unexplained by the factors considered. A doctrinaire interpretation would claim, in most cases, that a community with no population to begin with would accumulate some people even though no households were added in the process. While this analysis was done in terms of total population, rather than just household population, there is more to the constant than that. The average size of a county is pertinent in this regard and reference can be made to a similar analysis done for all the census tracts in suburban Philadelphia (Pennsylvania and New Jersey). While the counties in the sample averaged 86,736 in 1960 population, the census tracts averaged about 6,500 persons. The arbitrary constants are, respectively 2,064 and -15. The weightings of the factors in both cases is almost the same, considering the differences in number of cases observed, 20 counties as opposed to 427 census tracts. In both cases, the constants are small in proportion to the means of the values being estimated. For the Philadelphia area census tracts, the best estimate of 1960 population would be derived by adding to 88 percent of the 1950 population, 4.1 persons per additional households. As shown in the top line of Table II, the weights for the counties are 89.8 percent and 3.95 persons per added household.

TABLE II

SUMMARY OF REGRESSIONS

Population Age Group 1960	=	Percent of Population 1950 (Age Group) (Persistence Rates)		+	Persons Per Add'l Hsehold (1950-60)	+	Arbitrary Constant	Std. Error	
								No.	%
All ages		89.8%	(all ages)		3.950		2,604	2,409	2.8%
0-4		9.1%	(5 on)		.665		797	943	10.0%
5-9		9.6%	(10 on)		.560		912	925	10.4%
10-14		81.8%	(0-4)		.356		274	337	4.1%
15-19		75.1%	(5-9)		.307		282	457	6.8%
20-24		57.5%	(10-14)		.359		126	443	9.0%
25-29		63.5%	(15-19)		.376		-51	438	8.7%
30-34		73.9%	(20-24)		.354		144	423	7.1%
35-39		75.4%	(25-29)		.340		226	291	4.6%
40-44		79.8%	(30-34)		.254		175	226	3.7%
45-49		82.9%	(35-39)		.173		70	104	1.9%
50-54		80.3%	(40-44)		.141		120	151	3.1%
55-59		80.7%	(45-49)		.094		106	172	4.1%
60-64		78.2%	(50-54)		.047		89	114	3.1%
65-69		75.6%	(55-59)		.041		103	143	4.4%
70-74		66.6%	(60-64)		.035		154	128	4.9%
75 on		40.8%	(65 on)		.044		13	135	4.3%

The number of persons per additional household derived as sum of age groups totals to 4.146 or very nearly the same as the figure derived from the census tract analysis. It may also be noted that the population attributed to additional households was comprised very largely of young children and young adults showing an age distribution typical of migratory increments to suburban townships which experienced much new building in the decade of the 1950's.

This kind of analysis is thought to be most appropriate for areas large enough to include the residences of the beginning and ending populations.

It is necessary to coin a new phrase for the percentages of initial population remaining in a community when other allowance is made for increases or changes in housing supply - these percentages have been termed "persistence rates." They can be thought of as indicating the proportions of the age groups that are apt to remain in a community if household losses, i.e., by death, institutional transfer, demolition, etc., are just sufficient to balance household gains achieved through family formation, reoccupancy of old dwellings and some new construction. In this connection, it is well to note that a net gain in households depends on both old and new households. Persistence of an old household is as necessary to the establishment of a net gain as is the new occupancy of an existing or new dwelling; and household change is as much a vital statistic for a community as natural increase is for a population. Generally speaking, it would appear that some new housing construction is necessary in a community for it to maintain its population total. More is necessary for it to hold its natural increase; and still more is necessary to accommodate an in-migratory trend, barring a new trend towards families doubling up. It is typical for young adults to be more highly mobile than their parents so that if net gains in households don't occur, a community's population will tend to get rapidly older as the young people leave and smaller as the local death rate rises while the potential for births travels with the young adults.

For a constant number of households, it is indicated that in the course of a decade, the average community will lose 11 percent of its population. This 11 percent is approximately equal to 1 percent compounded annually and is consistent with an observation based on interviews in new housing developments to the effect that about 1 percent of the population each year participated in formation of new households. (Source: Abu Lughod, in Housing Choices and Housing Constraints Action Series in Housing and Community Development, McGraw Hill, 1960, p. 100.)

It will have been noted from Table II that the persistence rate for a total population is higher than that for any of the age groups over 10 (89.8 percent as compared with a range running from 40 to 83 percent). The explanation lies in the fact that while 1/3 to 1/4 of the young adult population is associated with net change in households, the remaining 2/3 to 3/4 go on providing births to the population in old households. Indeed it can be taken for granted that most of the population under 5 is resident in dwellings more than 10 years old since some 80 percent of the housing supply is in this category.

Persistence rates are a residual after the death rate and mobility have taken their toll. For the initial population under 50, mobility is by far the more important aspect of the matter. For the population between 50 and 60, the two factors are of about equal importance; and for the older population, the death rate has greater importance. Table III has been developed on the assumption that a "net remaining" rate can be calculated by dividing the persistence rate by the survival rate as published by the U. S. Bureau of the Census. The death rate is then the complement of the survival rate, and the "net departing" rate is the complement of the net remaining rate. Since there are problems of underreporting in some age groups, the anomaly of a negative death rate appears in the table; however, these would seem to be the correct rates to consider when comparing census populations.

TABLE III

TEN-YEAR AGE-SPECIFIC RATES

Age Group	Death (1)	Net Departing (2)
0-4	-.020	.200
5-9	.012	.229
10-14	.038	.340
15-19	.009	.359
20-24	-.044	.262
25-29	.004	.242
30-34	.011	.190
35-39	.050	.127
40-44	.071	.196
45-49	.078	.124
50-54	.141	.090
55-59	.129	.132
60-64	.210	.158
65 on	.536	.130

(1) Irrespective of residence (Source: U. S. Brueau of the Census, Current Population Report, P-23, No. 15, March 12, 1965).

(2) With respect to a constant number of households.

In Pennsylvania, over the last decade, the persistence rates in the aggregate appear to be quite uniform. It is assumed that they are also quite stable over time since the data have been derived from areas in all stages of development ranging from slum lands along the Delaware River, through suburbs old and new, and on into rural hinterland. All the research, however, was restricted to an era of general high level prosperity; and the estimates of future enrollment must thus be considered as assuming continuing prosperity of the sort experienced since 1950.

In order to proceed with the use of the persistence rates, it is necessary to estimate appropriate rates for five year periods. This necessity rises from two contexts. First, construction trends are apt to be quite different from one five year period to the next; one need only remember our varied history since 1950. In the early 1950's, high levels of single family house construction were achieved which, however, tailed off in the late 1950's. In the late 1950's, construction proceeded at a slower rate while the mix as between apartments and single family houses changed in favor of apartments. In the early 1960's, the apartment boom was in full swing; but by the late 1960's, it, too, tailed off; and we appear now to be in another period of slack as the mix changes back toward single family construction. Second, mobility patterns within cohort are subject to change as the cohort ages, with the most radical change apparently occuring in the 5-9 age group. Stability would appear to be its hallmark as such a cohort becomes 10-14 years old; greatly increased mobility is indicated, however, as it becomes 15-19 years old and proceeds on into the 20-24 year old age group. The reasons for such increased mobility are not hard to find since they include job seeking, family formation, military service, higher education, and likely intensification of the generation gap.

Table IV compares five and ten year persistence rates. The five-year rates have been derived from the ten year rates on the following assumption, namely: since the ten year persistence rates for the age groups 40-44 and 45-49 are nearly equal, the five year rates for these age groups are assumed equal to each other and hence to the square root of either of the ten year rates. By taking the ten year rates to be products of appropriate five year rates, the rest follows by implication since the ten year rates and one of the five year rates is given and the other five year rates can be had by division.

TABLE IV

AGE-SPECIFIC PERSISTENT RATES

Initial Age Group	Ten Year	Five Year
0-4	81.8%	83.5%
5-9	75.1%	98.0%
10-14	57.5%	76.5%
15-19	63.5%	75.0%
20-24	73.9%	84.8%
25-29	75.4%	87.2%
30-34	79.8%	86.5%
35-39	82.9%	92.5%
40-44	80.3%	89.5%
45-49	80.7%	89.5%
50-54	78.2%	90.0%
55-59	75.6%	87.0%
60-64	66.6%	87.0%
65 on	40.8%	75.5%

These findings are intuitively satisfying on two counts and have served as the basis for preliminary investigation. The five year rates are higher than the ten year rates and less than 1.0 minus the death rates. Secondly, the persistence rate for the youngest age group is more nearly equal the persistence rate for 20-24 year olds, which would seem to be biologically appropriate. HOwever, there are many sets of rates which could meet these criteria; and experimentation with data from rural areas appears to indicate that the five year rates for the first three age groups should be modified to secure a more reasonable fit between 1960 census data and enrollments for 1964-65. The persistence rates employed in the estimating procedure are as follows:

TABLE V

ADJUSTED FIVE YEAR PERSISTENCE RATES

Age Group	Persistence Rate
0-4	.88
5-9	.95
10-14	.93

The age distribution of population attributable to household changes is probably less stable over time. Obviously, these latter averages will vary from community to community according to whether household changes are mostly in single family units or apartments. In addition, if the new single family housing in a community is quite expensive, families moving into it will likely be of mature size since it takes considerable time for a family to come to afford such housing. In the decade of the 1950's, a great deal of new housing was provided for young, new families. In the present decade, a great deal of new housing appears to be in response to income and social changes as some of the new families of the 1950's find they can now move up to more luxurious housing and prefer to leave more central locations.

In one Bucks County school district about 1.85 pupils per new dwelling are expected nowadays, and this figure is above the average indicated in age groups 0-14, based on the data of 10 years ago when 1.581 potential pupils per new house might have been expected (1.581 is the sum of .665, .560, and .356 - see Table II). Families bringing in 1.85 pupils, however, probably bring in fewer pre-school children than young families having a weaker immediate impact on a school district.

Accommodation has been made to these changing circumstances by tailoring the allowances for population per additional household as follows:

TABLE VI

ESTIMATED POPULATION PER ADDITIONAL HOUSEHOLD

	1950-60	1960-65	1965-70	1970-75
Total	4.1	4.3	4.5	4.3
Ages 5-19	1.223	1.61	1.7	1.41
Ages 0-4	.665	.5	.4	.6

Prospective birthrates and volumes are not much of a problem as regards five year estimates of enrollment trends since it takes five years for the newborn to get into the school system. Within this planning horizon, enrollment trends are subject only to variations among those already born. Aside from the effects of changes in number of households, the preschool population of 1970 has been estimated as 9 percent of the population of 1965; and the preschool population of 1975 has been estimated as 10 percent of the population of 1970. The low percentage applied to the 1965 population relates to the historic decline in births recorded over the past several years. The higher percentages applied to the 1970 population relates to the rapidly increasing numbers of people in the young parent age groups, which has already begun.

This method of analysis can be thought of as combining two methods of estimate recommended by the Census Bureau. One Census Bureau method of estimate relies on concepts of natural increase and net migration, examining elementary school enrollment trends to calibrate the allowance for migration. Another relies more basically on housing trends and is preferred where housing statistics are thought to be highly reliable. This method of analysis uses school enrollment trends to estimate household changes and then estimates a component of net migration in correspondence with the estimated household change. Two components of net migration are calculated in this analysis: a net outward component related to population size and a further net figure, inward or outward, depending on household growth or decline.

In quite a general way, it does seem that this method of analysis, tends to reconcile divergent observations of demographers and school personnel. As indicated, school planners have noted enrollment increases as high as 1.85 pupils per new dwelling. Demographers, on the other hand, have noted that communities as a whole don't long sustain enrollments greater than 1.0 to 1.2 pupils per dwelling. In many areas, new dwellings are virtually synonymous with additional households; and when account is taken of population transfers from original to expanded housing supplies, the observations appear not to be consistent.

It is worth noting that the computer program which incorporates the elements of this estimating procedure has yielded credible results for suburban and rural districts. It has not been tested in any large city, though data from some medium-sized boroughs has proved tractable.

The assumed relations between present experience and future prospects are worth some special note.

The expected change in households in a district between 1965 and 1970 has been assumed to be equal to 5/3 of the change indicated as between 1965 and 1968, whether the indicated change is positive or negative. Whether this will be true depends on myriad factors, some as remote as the price of gold, others as pressing as the adoption of a new zoning policy, and some as indeterminate as the date for the end of hostilities in Viet Nam. Whatever the causes, building activity in 1968 is less intense than it was in 1966. Thus in many areas where household gains have been registered since 1965, the assumption of a constant number of new units per year will lead toward estimates that are somewhat high, although not unreasonably high, unless housing construction should take a sudden spurt in the next year as compared to this.

Since household gains in some areas probably depend on household losses in other areas, at least to some extent, the estimates may be reasonably low in areas where a steady household loss has been indicated.

In another respect, it is likely that the estimates are all somewhat high, though again, not unreasonably so. If it is true that all school systems are crowded in some degree at the present time, as is perhaps indicated by the increasing percentage of children attending public school, then it would seem that some slack, particularly in the private school system, will develop if the present public share holds constant while the current shortage of preschool children matures to the elementary school level. This slack will become more evident if private school financial resources are increasingly agumented by public contributions. It would seem reasonable to estimate some decline in the public share over the next five years. Demographic factors, however, have an uncertain impact on social customs and attitudes so that it seems reasonably prudent not to count on such a lightening of the public task.

Introduction to Analytical Procedures

Even though the data base required for the development of estimates is narrowly restricted, the necessary data may not be readily at hand or even feasibly obtainable, especially the geographic distribution of enrollments in private schools three or four years ago. In some public school districts it may be necessary to unravel a considerable history of combinations and jointures to arrive at an accurate statement of enrollments generated in the areas presently within a district's jurisdiction.

Assume that accurate information is available only with regard to the following:

(1) Age distribution (1960) for groups 0-4, 5-14, 15-24;

(2) Total public school enrollment for 1964-65 (ADM), and fall enrollments 1967 and 1968; and

(3) Private school enrollment of district residents, 1968.

The following accommodations can be made:

(1) County age distributions are, in all cases, available by five year age groups. Estimate the local distribution by five year age groups in accordance with what is reported for the County, that is, if 52 percent of the County's 5-14 year olds were 5-9 years old, assume that 52 percent of the district's 5-14 year olds were 5-9 years old.

(2) Use the 1964-65 ADM figure as an estimate of enrollment distribution as of April 1965. This may be done by inserting these figures twice where fall enrollments are called for in the program for years 1964 and 1965.

(3) There has been a state-wide trend leading to higher proportions of pupils in the public schools. For lack of better district information, it is reasonable, at least in some areas, to assume that private school enrollments have held constant between 1967 and 1968. It also accords with the limited number of observations available to assume that the public share has increased by 2 percent as between spring 1965 and spring 1968. An option in the program has been created for use where these generalities seem to be reasonably appropriate. According to this option, total enrollments for spring 1965 are calculated as a function of public school enrollment and the estimated percentage of pupils attending public school. Without the option, total

enrollments are calculated as the sum of reported public and private enrollments.

A lack of information on births or the inappropriateness of birth trends as reported does not affect the calculating procedure since whatever birth information is inserted is merely summed by five year periods and printed out. The computer program will run if, when information on births is called for, ten zero's are inserted.

In what follows, the calculating procedure is given first as a manual procedure that can be completed with worksheets and an office calculator, and secondly as an automated procedure using the computer program which has produced the results discussed above.

Manual Procedure

Enrollment Analysis

1. Calculate total enrollments by grade for 1964-65, 1965-66, 1967-68, 1968-69. (See Enrollment Data Sheet.)

2. Sum total enrollments only by grade groups 1-3, 4-6, 7-9, 10-12.

3. Average total enrollment by grade group for estimate of spring enrollments - 1965 and 1968.

4. Calculate public share of total by individual grade for 1968-69.

5. Summary of necessary estimates:

Spring Enrollment

Grades	1965	1968
1-3	E(65,1)	E(68.1)
4-6	E(65,2)	E(68,2)
7-9	E(65,3)	E(68,3)
10-12	E(65,4)	E(68,4)

Public Share 1968-1969

Grade	Percent Public
1	Pct. (1)
2	Pct. (2)
3	Pct. (3)
4	Pct. (4)
5	Pct. (5)
6	Pct. (6)
7	Pct. (7)
8	Pct. (8)
9	Pct. (9)
10	Pct. (10)
11	Pct. (11)
12	Pct. (12)

6. Estimate 1965 and 1968 age distributions from spring enrollments. Spring enrollments must be used in conjunction with the census report of distribution of ages by grade since the census is taken in April and about half the school children will have birthdays between September and April. Age groups are noted as follows: A(65,1) for 1965's 0-4 year olds; A(65,2) for 1965's 5-9 year olds; etc. The necessary calculations are shown below:

$$1.379\ E(65,1) + .242\ E(65,2) + 0.0\ E(65,3) + 0.0\ E(65,4) = A(65,2)$$

$$.021\ E(65,1) + .770\ E(65,2) + .875\ E(65,3) + .029\ E(65,4) = A(65,3)$$

$$.006\ E(65,1) + .006\ E(65,2) + .138\ E(65,3) + 1.595\ E(65,4) = A(65,4)$$

Repeat, using same factors with 1968 enrollments to yield 1968 age distribution: A(68,2); A(68,3); etc. In matrix algebra, the calculations may be shown more compactly as follows:

ENROLLMENT DATA SHEET

Fall Figures

Grade	1964-65			1965-66			1967-68			1968-69		
	Pub	Pvt	Tot	Pub	Pvt	Tot	Pub	Pvt	Tot	Pub	Pvt	Tot
K												
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Grade	Pub	Pvt	Tot	Pub	Pvt	Tot	Pub	Pvt	Tot	Pub	Pvt	Tot
1-3	x	x	____	x	x	____	x	x	____	x	x	____
4-6	x	x	____	x	x	____	x	x	____	x	x	____
7-9	x	x	____	x	x	____	x	x	____	x	x	____
10-12	x	x	____	x	x	____	x	x	____	x	x	____

Note: See text, if data by grade are not available for all years.

Population Analysis

1. From the 1960 Census, summarize municipal data to yield the school district's age distribution for groups 0-4, 5-9, 10-14, and 15-19, and total. These will be noted P(60,1), P(60,2), P(60,3) and P(60,4) for the five year groups and TP(60) for the total population.

2. Derive an estimate of residual population by application of persistence rates and compare with the estimates of actual age distribution from the enrollment data to find the differences, for instance, D(60-65,2) and sum the differences.

   $.88\ P(60,1) = P(65,2)$ $\quad A(65,2) - P(65,2) = D(60\text{-}65,2)$

   $.95\ P(60,2) = P(65,3)$ $\quad A(65,3) - P(65,3) = D(60\text{-}65,3)$

   $.93\ P(60,3) = P(65,4)$ $\quad A(65,4) - P(65,4) = \underline{D(60\text{-}65,4)}$

   Total Difference TD(60-65)

3. Estimate household change as $TD(60\text{-}65) / 1.61 = H(1)$.

4. Estimate total population and preschool population, 1965, as:

   $.95\ TP(60) + 4.3\ H(1) = TP(65)$

   $.10\ TP(60) + .5\ H(1) = A(65,1)$

5. Extend the analysis to 1970 as follows:

   a. $.88\ A(65,1) = P(70,2)$
   $.95\ A(65,2) = P(70,3)$
   $.93\ A(65,3) = P(70,4)$

   b. $.4\ A(65,2) + .6\ P(70,2) = P(68,2)$
   $.4\ A(65,3) + .6\ P(70,3) = P(68,3)$
   $.4\ A(65,4) + .6\ P(70,4) = p(68,4)$

   c. $A(65,2) - P(68,2) = D(65\text{-}68,2)$
   $A(68,3) - P(68,3) = D(65\text{-}68,3)$
   $A(68,4) - P(68,4) = D(65\text{-}68,4)$

   d. $1.67\ (D(65\text{-}68,2)) = D(65\text{-}70,2)$
   $1.67\ (D(65\text{-}68,3)) = D(65\text{-}70,3)$
   $1.67\ (D(65\text{-}68,4)) = \underline{D(65\text{-}70,4)}$
   Total Difference TD (65-70)

   e. Estimate household change as $TD(65\text{-}70) / 1.70 = H(2)$

f. Estimate school ages 1970 as:

$A(65,2) + D(65-70,2) = A(70,2)$
$A(65,3) + D(65-70,3) = A(70,3)$
$A(65,4) + D(65-70,4) = A(70,4)$

g. Estimate total and preschool population 1970 as:

$.95\ TP(65) + 4.5\ H(2) = TP(70)$
$.09\ TP(65) + 0.4\ H(2) = A(70,1)$

6. Extend analysis to 1975 as follows:

a. If H(2) is a minus number, multiply by -.8 to estimate H(3), i.e., -.8 H(2) = H(3) (answer will be positive). If H(2) is a positive number, multiply by 1.2 to estimate H(3), i.e., 1.2 H(2) = H(3), or from independent analysis based on land use, regional position, highway plans, etc., assign a reasonable value to H(3) to indicate expected household gain 1970-75.

b. Estimate 1975 population as follows:

$.10\ TP(70) + .60\ H(3) = (A(75,1)$
$.88\ A(70,1) + .56\ H(3) = A(75,2)$
$.95\ A(70,2) + .45\ H(3) = A(75,3)$
$.93\ A(70,3) + .40\ H(3) = A(75,4)$

$.95\ TP(70) + 4.3\ H(3) = TP(75)$

Enrollment Estimates

1. From the preceding analysis, fill in the following table:

Ages	1968	1969	1970	1971	1972	1973	1974	1975
5-9	A(68,2)		A(70,2)					A(75,2)
10-14	A(68,3)		A(70,3)					A(75,3)
15-19	A(68,4)		A(70,4)					A(75,4)

Estimate age distributions for intervening years by interpolation, i.e., $(A(68,2) + A(70,2)) / 2 = A(69,2)$. etc.

2. Estimate total enrollments by grade group as follows: (Taking 1968 as an example - this calculation provides estimates nominally for the spring of each year.)

$$.6055\ A(69,2) + .0139\ A(69,3) + .0062\ A(69,4) = E(69,1)$$
$$.1368\ A(69,2) + .4747\ A(69,3) + .0062\ A(69,4) = E(69,2)$$
$$.0000\ A(69,2) + .4759\ A(69,3) + .1120\ A(69,4) = E(69,3)$$
$$.0000\ A(69,2) + .0128\ A(69,3) + .5615\ A(69,4) = E(69,4)$$

3. List the results in a table of spring enrollment estimates.

Grades	1968	1969	1970	1971	1972	1973	1974	1975
1-3	E(68,1)	E(69,1)	E(70,1)					E(75,1)
4-6	E(68,2)	E(69,2)	E(70,2)					E(75,2)
7-9	E(68,3)	E(69,3)	E(70,3)					E(75,3)
10-12	E(68,4)	E(69,4)	E(70,4)					E(75,4)

4. Make a similar table for fall enrollments by averaging the figures for consecutive years.

5. Estimate future first grade enrollments as 1/3 of enrollments in grades 1-3.

6. Make a preliminary estimate of next fall's enrollments for all grades by applying retention ratios as follows:

Grade	1968	1969	Grade
		(1/3 E(69,1))	1
1	( ) x .99 =	( )	2
2	( ) x .99 =	( )	3
3	( ) x .99 =	( )	4
4	( ) x .99 =	( )	5
5	( ) x .99 =	( )	6
6	( ) x .99 =	( )	7
7	( ) x .98 =	( )	8
8	( ) x .97 =	( )	9
9	( ) x .97 =	( )	10
10	( ) x .96 =	( )	11
11	( ) x .95 =	( )	12

7. Sum up by grade groups 1-3, 4-6, 7-9, 10-12 and compare with estimates for the grade groups. Adjust the

preliminary estimate by adding or subtracting 1/3 of the grade group differences to each grade in the group.

8. Continue with a preliminary and a final estimate for each succeeding year. Do not run the retention ratios through for all years and then make adjustments all at once.

9. Reduce the estimates by calculating a public share either by use of the factors listed as Pct(1), Pct(2)... Pct(12) or after consultation with the administrator of private schools in the district.

10. Estimate kindergarten enrollments as percent of first grade enrollments, reflecting ancitipated changes in program level, if any.

Automated Procedure

On the pages which follow are instructions for making the calculations required to generate estimates of future enrollments through computer output. Comments on what the various parts of the computer program are intended to do are keyed in by line number. The notation is in Quiktran, IBM's language for "conversational" use of a computer. One uses an electric typewriter to enter data, and the computer responds by causing the answer to be printed out on the typewriter. The program language is closely similar to Fortran and so the program can be readily adapted to computers utilizing information on punched cards. This section is for the convenience of programmers, but may be of interest to others.

The development of the program illustrated consists largely of naming tables of numbers, identifying the position of each number, inserting some numbers to begin with, and defining the numbers wanted in terms of what has been entered. One might instruct the machine:

1. Locate some number in position A(1,2), i.e., READ A(1,2).

2. Make a number in position B(3) twice what you have in position A(1,2), i.e., B(3) = 2.0*A(1,2).

3. Give the answer, i.e., PRINT B(3).

4. Stop.

The double subscript in Table A might refer to the second grade enrollment in the first year considered. Generally, in the program which follows, if data are incorporated or used year by year, the first subscript will refer to the year. Age distribution and enrollment data and births are read in specifically for each district. Other numbers in the program, such as the persistence rates, are for use any time the program is run; and these are listed in the Addendum.

When 1969 enrollment data are available, the extrapolation to estimate household change 1965-70 will be by a factor of 1.25 instead of 1.67 (line number 183). The enrollment inputs will then refer to 1964 and 1965 and 1968 and 1969. It will be unnecessary to interpolate for estimates previous to 1971 and various adjustments will have to be made in the range of operations of subscripts, some column headings will also need to be changes. Results of the 1970 census will probably warrant changes in some of the estimating parameters.

Program Explanation (Lines 101-125)

The DIMENSION statements at the beginning of the program list the tables of data to be worked with. The first five tables are to include data particular to the school district for which enrollments are being entered:

(1) Name: Name of the school district. Abbreviate, if necessary, so that no more than 36 letters and spaces are employed.

(2) Births: Secure from the State Department of Health a listing of births reported for all municipalities in the district and sum them for the district total. The department's information by municipality extends only back to 1961. For 1960, either repeat the 1961 figure or use the census report for population under 1 as of 1960. For 1968 and 1969, repeat the 1967 figure. Ten entries are wanted to correspond with the years 1960 to 1969 inclusive.

(3) Pubenr: Data is wanted on resident (household) student enrollments in district's own schools by grade and year for the years 1964-65, 1965-66, 1967-68, and 1968-69.

(4) Pvtenr: Similar data is wanted for all other resident (household) students attending schools other than the district's own schools.

(5) Agedns: The first column of figures in this table is derived from the U. S. Census of Population, 1960 and includes age groups 0-4, 5-9, 10-14, and, finally, the total population of the district.

The next three tables are derived directly from the tables of public and private enrollments.

(1) Totenr: The first four columns of this table are the sum of the corresponding items in the tables of public and private enrollments.

(2) Pctpub: This table contains the percentages of total enrollment, by grade and year, in the public schools.

(3) Rptenr: This table contains estimates of spring enrollment by grade group for the years 1965 and 1968 and is derived as the average of fall enrollments for 1964-65 and 1965-66 for spring 1965 and of fall enrollments for 1967-68 and 1968-69 for the spring of 1968.

The remaining entries in the above tables and in the following are derived in the course of calculations:

(1) Hsginc: Estimated increase in households, 1960-65, 1965-70, and 1970-75. The calculation of household change will be affected if private school enrollments have not previously been recorded and some of the students transfer to public school. While housing data and the means of estimate are not exact enough to allow a precise numerical check, if large changes are indicated and there is no impression of extensive building or changing vacancy rates, it might be well to adjust the estimate of new households derived for the 1970's in line with the expectations of knowledgeable people in the community.

(2) Chgpop: This table lists the change in school and preschool age population associated with the estimated changes in number of households for 1960-65, 1965-70. In the output, in either column of this table the figures should be of the same sign (plus or minus), unless the numbers themselves are not much different from zero. One might tolerate differences in sign if the numbers are not more than 5 percent of the affected age group. If in reading down a column, large numbers, say, over 100, are encountered with some but not all being of one sign, say, positive, it is an indication either that the data have not been properly defined or that the district's growth is not closely enough approximated by this scheme of calculations for the estimates of future enrollment to be considered reliable, without further investigation.

(3) Pupage: This table contains the annual estimates of school age population by five year age group. It is

derived from the table "agedns", which contains the information 1968, 1970, and 1975, on the assumption that if an age group is estimated to increase from one of these years to the next, the increase will be uniform at so many persons per year in the interim. This table is the basis for estimating each year's enrollment by grade groups 1-3, 4-6, 7-9, and 10-12.

(4) Totenr: The last seven columns in this table contain estimates of the district's own enrollment.

(5) Estenr: This table contains estimates of the district's public school enrollment and has been derived on the assumption that the public share of total enrollment reported in 1968-69 will remain constant. With the general decline in elementary enrollments creating relative slack in the school systems and with the possibility of increasing state aid to private schools, it would seem likely that the public share of total will likely decline somewhat so that, if all else is accurate, these estimates of public enrollment will in general be slightly high.

The following tables include factors which interrelate population, housing, and school enrollment data:

(1) Ageopr: This table defines the assignment of school enrollment to age groups. The factors employed take into account the members of the age groups who do not attend school in grades 1-12. Thus, 5-9 year olds are partly estimated by multiplying the total in grades 1-3 by approximately 11/8 since many 5-9 year olds (as of April) are in kindergarten or not in school at all. About 1/4 of grades 4-6 are also in this group. By and large, school enrollments include about 75 percent of the 5-9 year olds, 98 percent of the 10-14 year olds, and about 69 percent of the 15-19 year olds. A small percentage of the 20-24 year olds also go to high school; however, questions of institutional enrollment arise in connection with this age group so that it has not been included in the procedure for estimating non-institutional enrollments.

(2) Enropr: This table defines the assignment of age groups to grade groups, i.e., about 3/5ths of 5-9 year olds can be expected in grades 1-3 along with about 1/7th of the 10-14 year olds.

(3) Hsgage: This table indicates the persons per additional household by age group expected to come with the new households of the early 1970's.

(4) Srvxm: This table includes the proportions of the school age population that may be expected to remain in a community if there is no change in the number of households in the community for a five year period. The proportions are all less than one since housing demand is generally on an increase and some persons will move elsewhere if households do not increase locally.

(5) Rpct: This table includes retention ratios which are intended to apply if the number of households is constant. Empirically derived public school retention ratios reflect not only the aging of a given population but also migration and transfers back and forth between the public and private schools. They are thus not appropriate for total enrollments under conditions of household stability.

Tabs is a table of marginal labels for the final print-out.

PROGRAM PRINTOUT (LINES 101-125)

```
101.   =     CF          PROGRAM KIDS5
102.   =                 DIMENSION NAME(6),BIRTHS(10),PUBENR(4,13),PVTENR(4,13),
                         AGEDNS(5,5)
103.   =                 DIMENSION TOTENR(11,18),PCTPUB(4,13),RPTENR(2,4)
104.   =                 DIMENSION HSGINC(3),CHGPCP(2,4),PUPAGE(8,4),ESTENR(11,18)
105.   =                 DIMENSION AGEOPR(4,3),ENROPR(3,4),HSGAGE(4),SRVXM(3),RPCT(11)
106.   =                 DIMENSION TABS(3,10)
107.   =                 GO TO 7
108.   =               1 CALL COPY(1+1,1+1)
109.   =     *ENTER AGEOPR(4,3) AND ENROPR(3,4)
110.   =                 DO 2 I=1,4
111.   =     CF          READ 0,(AGEOPR(I,J),J=1,3)
112.   =               2 CONTINUE
113.                     DO 3 I=1,3
114.   =     CF          READ 0,(ENROPR(I,J),J=1,4)
115.   =               3 CONTINUE
116.   =               4 CALL COPY(4+1,4+1)
117.   =     *ENTER TAB LABELS
118.   =                 DO 5 I=1,3
119.   =               5 READ 60,(TABS(I,J),J=1,10)
120.   =              60 FORMAT(10A6)
121.   =               6 CALL COPY(6+1,6+1)
122.   =     *ENTER HSGAGE(4),SRVXM(3),RPCT(11)
123.   =     CF          READ 0,(HSGAGE(J),J=1,4)
124.   =     CF          READ 0,(SRVXM(J),J=1,3)
125.   =     CF          READ 0,(RPCT(J),J=1,11)
```

Program Explanation (Lines 126-146)

These are input statements, roughly equivalent to punching the keys on an adding machine. The equal sign "=" is an instruction to give a number some value or a set of values, not a statement, as in algebra, that some number has an implied value. If data on private school enrollments is not available for 1964 or 1965, enter zeros and include program lines 153.2 to 153.7. If available for only one of these years, insert the information twice as if no change were reported and exclude lines 153.2 to 153.7. If zero enrollments are true for 1964 and 1965, enter them and exclude the program option in lines 153.2 to 153.7.

PROGRAM PRINTOUT (LINES 126-146)

```
126.    =         7   CALL COPY(7+1,7+1)
127.    =     *ENTER DISTRICT NAME
128.    =             READ 8,(NAME(J),J=1,6)
129.    =         8   FORMAT(6A6)
130.    =         9   CALL COPY(9+1,9+1)
131.    =     *ENTER PUB. SCH. ENR.  64/5, 65/6, 67/8, 68/9, ONE LINE PER YR.K,1,
                      2...12 AS C       XX./XX./..
132.    =             DO 10 I=1,4
133.    =     CF      READ 0,(PUBENR(I,J),J=1,13)
134.    =        10   CONTINUE
135.    =        11   CALL COPY(11+1,11+1)
136.    =     *ENTER PVT. ENR. K-12, FOR SAME YEARS
137.    =             DO 12 I=1,4
138.    =     CF      READ 0,(PVTENR(I,J),J=1,13)
139.    =        12   CONTINUE
140.    =        15   CALL COPY(15+1,15+1)
141.    =     *ENTER L960 AGE DISTRIBUTION,0-4,5-9,10-14,15-19,AND TOTAL
142.    =     CF      READ 0,(AGEDNS(1,J),J=1,5)
143.    =       115   CALL COPY(115+1,115+1)
144.    =     *ENTER BIRTHS(10),L960,L961,...1969
145.    =     CF      READ 0,(BIRTHS(J),J=1,10)
146.    =             CALL SAVE
```

Program Explanation (Lines 147-189)

1. Lines 147 to 153 - Defines values in the first four columns of totenr as the sum of corresponding elements in pubenr and pvtenr. Calculates public enrollment as percentage of total enrollment. "*" symbolizes multiplication; "/" symbolizes division.
2. Lines 153.2 to 153.7 - See end of program.
3. Lines 154 to 159 - Aggregates the enrollment figures by grade group 1-3, 4-6, etc.
4. Lines 160 to 162 - Puts estimates of spring enrollments 1965, and 1968 for the grade groups into rptenr (reported enrollemnt).
5. Lines 163 to 168 - Derives the age distributions which generated the spring enrollments of 1965 and 1968.
6. Lines 169 to 173 - Defines the population change expected under conditions of five years' aging and household stability and from this the remaining population change, which is attributed to change in the number of households in the community.
7. Line 174 - Estimates household change 1960-65 assuming 1.61 school-age children on the average per household.
8. Line 175 - Estimates 1965 total population in accordance with 1960 population and estimated household change.
9. Lines 176 and 177 - Estimates preschool population 1965 as 10% of the total popualtion in 1960 plus half the estimated household increase 1960-65.
10. Lines 178 to 181 - Estimates residual population as of spring 1968, after three years' aging, by interpolation between the 1965 population and the estimated effect of five years' change under conditions of household constancy.
11. Lines 182 to 186 - Extrapolate the population change associated with household change from a three year estimate to a five year estimate and estimates household increase on the basis of 1.7 school age children per household.
12. Lines 187 to 189 - Estimates total and preschool populations for 1970.

PROGRAM PRINTOUT (LINES 147-189)

```
147.   =          DO 17 I=1,11
148.   =          DO 17 J=14,18
149.   =      17  TOTENR(I,J)=0.
150.   =          DO 16 I=1,4
151.   =          DO 16 J=1,13
152.   =          TOTENR(I,J)=PUBENR(I,J)+PVTENR(I,J)
153.   =      16  PCTPUB(I,J)=PUBENR(I,J)/TOTENR(I,J)
154.   =          DO 13 I=1,4
155.   =          DO 13 J=1,4
156.   =          DO 13 K=2,4
157.   =          M=J+13
158.   =          N=3*J+K-3
159.   =      13  TOTENR(I,M)=TOTENR(I,M)+TOTENR(I,N)
160.   =          DO 14 J=1,4
161.   =          RPTENR(I,J)=(TOTENR(I,J+13)+TOTER(2,J+13))/2.
162.   =      14  RPTENR(2,J)=(TOTENR(3,J+13)+TOTENR(4,J+13))/2.
163.   =          DO 18 K=1,2
164.   =          DO 18 J=2,4
165.   =          T=0.
166.   =          DO 19 I=1,4
167.   =      19  T=T+AGEOPR(I,J-1)*RPTENR(K,I)
168.   =      18  AGEDNS(K+1,J)=T
169.   =          CHGPOP(1,1)=0.
170.   =          DO 20 J=1,3
171.   =          CHGPOP(1,J+1)=AGEDNS(1,J)*SRVXM(J)
172.   =          CHGPOP(1,J+1)=AGEDNS(2,J+1)-CHGPOP(1,J+1)
173.   =      20  CHGPOP(1,1)=CHGPOP(1,1)+CHGPOP(1,J+1)
174.   =          HSGINC(1)=CHGPOP(1,1)/1.61
175.   =          AGEDNS(2,5)=.95*AGEDNS(1,5)+4.3*HSGINC(1)
176.   =          AGEDNS(2,1)=.10*AGEDNS(1,5)+.5*HSGINC(1)
177.   =          CHGPOP(1,1)=.5*HSGINC(1)
178.   =          CHGPOP(2,1)=0.
179.   =          DO 22 J=1,3
180.   =          AGEDNS(4,J+1)=AGEDNS(2,J)*SRVXM(J)
181.   =      22  CHGPOP(2,J+1)=.4*AGEDNS(2,J+1)+.6*AGEDNS(4,J+1)
182.   =          DO 23 J=2,4
183.   =          CHGPOP(2,J)=1.67*(AGEDNS(3,J)-CHGPOP(2,J))
184.   =          AGEDNS(4,J)=AGEDNS(4,J)+CHGPOP(2,J)
185.   =      23  CHGPOP(2,1)=CHGPOP(2,1)+CHGPOP(2,J)
186.   =          HSGINC(2)=CHGPOP(2,1)/1.7
187.   =          AGEDNS(4,5)=.95*AGEDNS(2,5)+4.5*HSGINC(2)
188.   =          AGEDNS(4,1)=.09*AGEDNS(2,5)+.4*HSGINC(2)
189.   =          CHGPOP(2,1)=.4*HSGINC(2)
```

Program Explanation (Lines 190-239)

1. Lines 190 to 193 - Estimates household gains for any district in 1970-75. If there has been a loss estimated for 1965-70, the gain is estimated as 80 percent of the absolute value of the loss. If there has been a previous gain, a gain of 20 percent greater is estimated.

2. Lines 194 to 197 - Estimates school and preschool populations for 1975.

3. Lines 198 to 208 - Estimates pupil age groups for each year by interpolation between 1968 and 1970 and between 1970 and 1975.

4. Lines 209 to 214 - Estimates total enrollments by grade groups 1-3, 4-6, 7-9, and 10-12 apt to be generated by these age distributions.

5. Lines 215 and 216 - Estimates prospective first grade enrollments as 1/3 of prospective enrollments in grades 1-3 in preparation for application of retention ratios.

6. Lines 217 to 227 - Extends irregularities in present enrollment distribution by application of retention ratios and modifies this extension in line with enrollment changes due to changes in number of households.

7. Lines 234 and 235 - Estimates kindergarten enrollments in proportion to current first grade enrollments. This procedure is necessary in general because some districts have instituted kindergarten programs for the first time this year, while others have expanded their kindergarten programs since 1965. The result of this procedure is to estimate no kindergarten enrollments in districts not yet having such a program. If such a program is anticipated, one of the methods of estimating suggested in the previous section can be applied by referring to estimated total first grade enrollments and making allowance for a percentage not to attend the public kindergarten.

8. Lines 236 to 239 - Sums total enrollment in grades 1-12.

PROGRAM PRINTOUT (LINES 190-239)

```
190.    =          IF(HSGINC(2)-0.)24,25,25
191.    =      24  HSGINC(3)=-(.8*HSGINC(2))
192.    =          GO TO 26
193.    =      25  HSGINC(3)=1.2*HSGINC(2)
194.    =      26  DO 27 J=1,3
195.    =      27  AGEDNS(5,J+1)=AGEDNS(4,J)*SRVXM(J)+HSGINC(3)*HSGAGE(J+1)
196.    =          AGEDNS(5,1)=.10*AGEDNS(4,5)+.6*HSGINC(3)
197.    =          AGEDNS(5,5)=.95*AGEDNS(4,5)+4.3*HSGINC(3)
198.    =          DO 28 J=1,4
199.    =          PUPAGE(1,J)=AGEDNS(3,J)
200.    =          PUPAGE(3,J)=AGEDNS(4,J)
201.    =          PUPAGE(8,J)=AGEDNS(5,J)
202.    =      28  PUPAGE(2,J)=.5*PUPAGE(1,J)+.5*PUPAGE(3,J)
203.    =          DO 29 J=1,4
204.    =          DO 29 K=2,5
205.    =          X=K
206.    =          Y=1.2-.2*X
207.    =          Z=.2*X-.2
208.    =      29  PUPAGE(K+2,J)=Y*PUPAGE(3,J)+Z*PUPAGE(8,J)
209.    =          DO 30 K=2,8
210.    =          DO 30 J=1,4
211.    =          T=0.
212.    =          DO 31 I=1,3
213.    =      31  T=T+ENROPR(I,J)*PUPAGE(K,I+1)
214.    =      30  TOTENR(K+3,J+13)=T
215.    =          DO 32 I=5,11
216.    =          TOTENR(I,2)=.33*TOTENR(I,14)
217.    =          DO 33 J=2,12
218.    =      33  TOTENR(I,J+1)=RPCT(J-1)*TOTENR(I-1,J)
219.    =          DO 32 K=1,4
220.    =          TOTENR(I,18)=0.
221.    =          DO 35 L=2,4
222.    =          M=3*K+L-3
223.    =      35  TOTENR(I,18)=TOTENR(I,18)+TOTENR(I,M)
224.    =          DO 32 N=2,4
225.    =          NX=K+13
226.    =          MX=3*K+N-3
227.    =      32  TOTENR(I,MX)=TOTENR(I,MX)+TOTENR(I,NX)-TOTENR(I,18))/3.
234.    =          DO 37 I=5,11
235.    =      37  TOTENR(I,1)=TOTENR(I,2)*TOTENR(4,1)/TOTENR(4,2)
236.    =          DO 38 I=3,11
237.    =          TOTENR(I,18)=0.
238.    =          DO 38 J=14,17
239.    =      38  TOTENR(I,18)=TOTENR(I,18)+TOTENR(I,J)
```

Program Explanation (Lines 240-341)

1. Lines 240 to 242 - Translates the estimates of spring total enrollment back to estimates of fall enrollment by averaging the estimates for consecutive years.

2. Lines 243 to 257 - Estimates future public school enrollments as a percentage of future total enrollments, taking as constant the percentages appropriate to 1968-69.

3. Lines 258 to 262 - Sums reported births by five year period. Births in a five year period should sum to the population 0-4 years of age at the end of the period only under very special conditions, i.e., that the data are accurate and that the number of households is increasing strictly according to the needs of the initial population.

4. Lines 263 to 337 - The remainder of the program consists of output statements, roughly equivalent to touching the total button on an adding machine. Execution is halted to permit adjustment of paper in typewriter.

5. Lines 338 to 340 - Stops execution of program to permit insertion of independent estimate of household increase 1970-1975 in position HSGINC (3). The program can then be rerun starting with statement 26 on line 194.

6. Line 341 - Roughly equivalent to pulling the plug.

PROGRAM PRINTOUT (LINES 240-342)

```
240.  =          DO 39 J=1,18
241.  =          DO 39 I=5,10
242.  =      39  TOTENR(I,J)=(TOTENR(I+1,J)+TOTENR(I,J))/2.
243.  =          DO 40 J=1,13
244.  =          DO 41 I=1,4
245.  =      41  ESTENR(I,J)=PUBENR(I,J)
264.  =          DO 40 I=5,11
247.  =      40  ESTENR(I,J)=TOTENR(I,J)*PCTPUB(4,J)
248.  =          DO 170 I=1,11
249.  =          DO 170 J=14,18
250.  =     170  ESTENR(I,J)=0.
251.  =          DO 43 I=1,11
252.  =          DO 43 J=1,4
253.  =          DO 42 K=2,4
254.  =          M=J+13
255.  =          N=3*J+K-3
256.  =      42  ESTENR(I,M)=ESTENR(I,M)+ESTENR(I,N)
257.  =      43  ESTENR(I,18)=ESTENR(I,18)+ESTENR(I,M)
258.  =          B1=0.
259.  =          B2=0.
260.  =          DO 141 I=1,5
261.  =          B1=B1+BIRTHS(I)
262.  =     141  B2=B2+BIRTHS(I+5)
263.  =          CALL EJECT(60)
264.  =          PAUSE
265.  =     142  FORMAT(18X,6A6)
266.  =          PRINT 142,(NAME(J),J=1,6)
267.  =     140  FORMAT(1H)
268.  =          PRINT 140
269.  =          CALL HEDS6(2,8,8,3)
270.  =          PRINT 140
271.  =          PRINT 44,(TABS(1,J),J=1,2),(HSGINC(J),J=1,3)
272.  =      44  FORMAT(2A6,11X,3F10.0)
273.  =          PRINT 140
274.  =          CALL HEDS6(2,3,3,1)
275.  =          CALL HEDS6(2,7,7,1)
276.  =          DO 45 J=1,4
277.  =      45  PRINT 46,TABS(1,J+3),(CHGPOP(I,J),I=1,2)
278.  =      46  FORMAT(8X,A6,9X,2F10.0)
279.  =          PRINT 140
280.  =          PRINT 46,TABS(1,8),B1,B2
281.  =          PRINT 140
282.  =          PRINT 140
283.  =          CALL HEDS6(2,2,2,2)
284.  =          PRINT 47,TABS(1,3),(TABS(2,J),J=6,10)
285.  =      47  FORMAT(A6,12X,4(4X,A6))
286.  =          DO 49 J=1,4
287.  =      49  PRINT 48,TABS(1,J+3),(AGEDNS(I,J),I=1,2),(AGEDNS(I,J),I=4,5)
288.  =      48  FORMAT(A6,11X,4F10.0)
289.  =          PRINT 140
290.  =          PRINT 48,TABS(1,9),(AGEDNS(I,5),I=1,2),AGEDNS(I,5),I=4,5)
```

PROGRAM PRINTOUT (LINES 240-342, CONT'D.)

```
291.  =           GO TO 159
292.  =      148  PRINT 142,(NAME(J),J=1,6)
293.  =           CALL HEDS6(2,5,6,2)
294.  =           PRINT 50,TABS(1,9),(TABS(3,J),J=2,8)
295.  =       50  FORMAT(A6,7(2X,A6))
296.  =           PRINT 140
297.  =           PRINT 51,TABS(1,10),(TOTENR(I,1),I=3,9)
298.  =       51  FORMAT(A6,7F8.0)
299.  =           PRINT 140
300.  =           DO 53 J=1,12
301.  =       53  PRINT 52,J,(TOTENR(I,J+1),I=3,9)
302.  =       52  FORMAT(I3,3X,7F8.0)
301.  =       53  PRINT 52,J(TOTENR(I,J+1),I=3,9)
302.  =       52  FORMAT(13,3X,7F8.0)
303.  =           PRINT 140
304.  =           DO 54 J=1,4
305.  =       54  PRINT 51,TABS(2,J),(TOTENR(I,J+13),I=3,9)
306.  =           PRINT 140
307.  =           PRINT 51,TABS(2,5),(TOTENR(I,18),I=3,9)
308.  =           PRINT 140
309.  =           PRINT 140
310.  =           PRINT 140
311.  =           PRINT 55,(TABS(3,J),J=1,10)
312.  =       55  FORMAT(A6,7(2X,A6),1X,2A6)
313.  =           PRINT 56,TABS(1,10),(ESTENR(I,1),I=3,9),PCTPUB(4,1)
314.  =       56  FORMAT(/A6,7F8.0,F8.3/)
315.  =           DO 57 J=1,12
316.  =       57  PRINT 58,J,(ESTENR(I,J+1),I=3,9),PCTPUB(4,J+1)
317.  =       58  FORMAT(I3,3X,7F8.0,F8.3)
318.  =           PRINT 140
319.  =           DO 59 J=1,4
320.  =       59  PRINT 51,TABS(2,J),(ESTENR(I,J+13),I=3,9)
321.  =           PRINT 140
322.  =           PRINT 51,TABS(2,5),(ESTENR(I,18),I=3,9)
323.  =           CALL EJECT(60)
324.  =           GO TO 68
325.  =      159  PRINT 140
326.  =           PRINT 140
327.  =           CALL HEDS6(2,4,4,2)
328.  =           PRINT 140
329.  =           PRINT 140
330.  =           CALL HEDS6(2,9,9,2)
331.  =           PRINT 65,(PCTPUB(I,1),I=1,4)
332.  =       65  FORMAT(/21X,1HK,7X,4F6.3/)
333.  =           DO 66 J=1,12
334.  =       66  PRINT 67,J,(PCTPUB(I,J+1),I=1,4)
335.  =       67  FORMAT(20X,I2,7X,4F6.3)
336.  =           CALL EJECT(60)
337.  =           GO TO 148
338.  =       68  CALL COPY(68+1,68+1)
339.  =     *MAKE ADJUSTMENTS, IF NECESSARY, START(26)
340.  =           PAUSE
341.  =           END
```

Program Explanation (Lines 153.2-153.7)

This part of the program should be inserted only for those districts where information is not available on private school enrollments for the years 1964-65 and 1965-66. It is assumed that private school enrollments have been entered for 1967-68 and 1968-69 either as separately reported for each year or as duplicated on an assumption of no change from whichever year has been reported.

These instructions indicate that total enrollments for 1964-65 and 1965-66 are to be recalculated by dividing public school enrollments for these years by a value 1.5 percent smaller than the public share in 1967-68.

PROGRAM PRINTOUT (LINES 153.2-153.7)

```
153.2     =              DO 116 I=1,2
153.3     =              DO 116 J=2,13
153.4     =        116   TOTENR(I,J)=TOTENR(I,J)/(PCTPUB(3,J)-.015)
153.5     =              DO 117 J=2,13
153.6     =              PCTPUB(1,J)=PCTPUB(3,J)-.02
153.7     =        117   PCTPUB(2,J)=PCTPUB(3,J)-.01
```

Addendum

Estimating Parameters

1. The age operator is used to generate age groups (5-9, 10-14, 15-19) from a given list of grade groups (1-3, 4-6, 7-9, 10-12). The matrix is postmultiplied by the grade group vector.

1.379	.242	.0	.0
.021	.770	.875	.029
.006	.006	.138	1.595

2. The enrollment operator is used to generate grade groups from a given age distribution. This matrix is postmultiplied by the age group vector.

.6055	.0139	.0062
.1368	.4747	.0062
.0	.4759	.1120
.0	.0128	.5615

3. Household membership ratios associated with net change in households 1970-75.

Age Group	Hsgage
0-4	.600
5-9	.560
10-14	.450
15-19	.400

4. Persistence rates used to determine residual school age population after five years with no change in housing supply.

Age Group	Srvxm
0-4	.88
5-9	.95
10-14	.93

5. Retention rates used to estimate residual enrollments from year to year in total enrollment under conditions of a constant housing supply. These rates are not used to estimate the amount of future enrollments, which estimate is made on the basis of more general considerations, but only to preserve something of the irregularities in enrollments as most recently reported.

Grades	Rpct
1 to 2	.99
2 to 3	.99
3 to 4	.99
4 to 5	.99
5 to 6	.99
6 to 7	.99
7 to 8	.98
8 to 9	.97
9 to 10	.97
10 to 11	.96
11 to 12	.95

6. The alphameric matrix TABS consists of the following information with "x" representing blank spaces:

(j)	(i)		
	(1)	(2)	(3)
(1)	NEWxFA	x1-3xx	PUBLIC
(2)	MILIES	x4-6xx	1967xx
(3)	xAGESx	x7-9xx	1968xx
(4)	x0-4xx	10-12x	1969xx
(5)	x5-9xx	x1-12x	1970xx
(6)	10-14x	1960xx	1971xx
(7)	15-19x	1965xx	1972xx
(8)	BIRTHS	1970xx	1973xx
(9)	TOTALx	1975xx	PCT.xP
(10)	xxKxxx	xxxxxx	UBLICx

7. An alphameric matrix HEDS is contained in a subroutine HEDS6 (l,l,m,n) where k controls a GO TO statement according to whether information is to be read in or printed out, l and m provide the range for do-loops controlling which items are to be read in or printed out, and n controls whether the print out is to occur at the beginning of the line, after skipping 18 spaces, or after skipping 28 spaces. The matrix HEDS (9,6) consists of the following information:

(1) xxxxxxxxCOMMUNITYxNETxGROWTHxxxxxxxx

(2) xxxxxxxxxxxxxPOPULATIONxxxxxxxxxxxxx

(3) INDUCEDxPOPULATIONxCHANGExxxxxxxxxxx

(4) xxPUBLICxSHARExOFxTOTALxENROLLMENTxx

(5) xxxxxxxxENROLLMENTxESTIMATESxxxxxxxx

(6) xxxxxxxxxxx(FALLxFIGURES)xxxxxxxxxxx

(7) xxxxxxAGExGROUPSxxxxxxxxxxxxxxxxxxxx

(8) 1960-65xxx1965-70xxx1970-75xxxxxxxxx

(9) GRADESxxxxxxx1965xx1966xx1967xx1968x

APPENDIX E

Survey of Secondary School

Course Offerings

1968-1969

SURVEY OF SECONDARY SCHOOL COURSE OFFERINGS
1968-69

Name of District____________________

Telephone Number__________ County__________ Date__________

Name of Person Completing Report ____________________

DIRECTIONS

General

- Use a different sheet for each grade.

- Omit offerings which are part of the student activities program.

- If courses are open to students in different grades, course should be listed under grade in which it first becomes available, not in every grade in which it is offered. This will eliminate duplicate listings of the same course.

- Geography, psychology and other subjects which vary in departmental affiliation from school to school should be listed in the field under which each is taught, *e.g.*, science or social studies.

For Columns Under A

- Use symbols to represent each course (do not report duplicate sections) offered in a given subject such as biology, as follows:

   / when a course requires one semester to complete
   or X when a course requires both semesters to complete

- Enter each course in column for appropriate year of secondary school sequence, e.g., ninth grade English as third year of English in grades 7-12 would be entered under III; twelfth grade biology as second year biology in grades 7-12 would be entered under II.

- The number of columns in which the foregoing symbols are entered should not exceed the number of different courses and/or modifications thereof.

- In the last two columns under A indicate also the number courses meeting less than 200 minutes per week and the number of periods devoted to each.

For Columns Under B

- Place *check marks* in the appropriate column or columns to describe special provisions of courses for gifted students when such courses are shown as being offered under A.

For Industrial Arts,
Vocational-Technical and Commercial Subjects

- Include only subjects offered in schools of your district; *do not count those taught in area vocational-technical schools.*

- Under proper year of sequence, *e.g.* second year of automotive shop, enter the number of *different* courses offered for a full year (2 semesters) and the number offered for a half-year (one semester).

- In the remaining columns enter the number of minutes each course in a category meets weekly. Use an asterisk to identify half-year (one semester) courses.

Example:

400*	signifies 400 minutes weekly for one semester
200	signifies 200 minutes weekly for both semesters

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SURVEY OF SECONDARY SCHOOL COURSE OFFERINGS* 1968-69.

School District ______________________

Grade ________

Sponsored by the Intermediate Unit Development Project at the
University of Pennsylvania Under a Grant from The United States
Office of Education

SUBJECTS	-A- COMPONENTS OF EDUCATIONAL PROGRAM																												-B- SPECIAL PROVISIONS		
	Courses Offered for 200 or More Minutes Per Week (Year of Sequence, e.g. Second Year French)																										Courses offered for less than 200 minutes per week		Unique Features of Courses for Gifted (Check where applicable)		
	First I				Second II				Third III				Fourth IV				Fifth V				Sixth VI				Advanced Placement						
	Modifications of Course				Modifications of Course				Modifications of Course				Modifications of Course				Modifications of Course				Modifications of Course				Modifications						
	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Col. Bound	Gifted	Courses Offered	Periods Weekly	Special Seminars	Honors	Others Specify
1-5 ENGLISH																															
1 English (______) 1																															
2 Other Eng. (______) 2																															
3 (______) 3																															
4 (______) 4																															
5 (______) 5																															
6-7 READING, DEVELOPMENTAL																															
6 As Separate Course 6																															
7 Integrated With (______) 7																															
8-9 READING, REMEDIAL																															
8 As Separate Course 8																															
9 Integrated with (______) 9																															
10-17 FOREIGN LANGUAGE																															
10 Spanish 10																															
11 French 11																															
12 Latin 12																															
13 German 13																															
14 Russian 14																															
15 Other (______)15																															
16 (______)16																															
17 (______)17																															
18-29 SOCIAL STUDIES																															
18 American History 18																															
19 American Civilization 19																															
20 Ancient History 20																															
21 European History 21																															
22 World History 22																															
23 Government or Problems 23																															
24 Sociology 24																															
25 Economics 25																															
26 World Culture 26																															
27 Other (______)27																															
28 (______)28																															
29 (______)29																															

SUBJECTS		- A - COMP NTS OF EDUCATIONAL PROGRAM																												- B - S AL PROVISIONS		
		Courses Offered for 200 or More Minutes Per Week (Year of Sequence, e.g. Second Year French)																										Courses offered for less than 200 minutes per week		Unique Features of Courses for Gifted (Check where applicable)		
		First I				Second II				Third III				Fourth IV				Fifth V				Sixth VI				Advanced Placement						
		Modifications of Course				Modifications of Course				Modifications of Course				Modifications of Course				Modifications of Course				Modifications of Course				Modifications						
		Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Slow Learn	Regu-lar	Col. Bound	Gifted	Col. Bound	Gifted	Courses Offered	Periods Weekly	Special Seminars	Honors	Others Specify
30-39 SCIENCE																																
30 Biology	30																															
31 Chemistry	31																															
32 Physics	32																															
33 Physical Science	33																															
34 General Science	34																															
35 Basic or Consumer Sci.	35																															
36 Earth Science (geology, astronomy, space)	36																															
37 Other (________)	37																															
38 (________)	38																															
39 (________)	39																															
40-50 MATHEMATICS																																
40 Algebra	40																															
41 Geometry	41																															
42 Solid Geometry	42																															
43 Trigonometry	43																															
44 Calculus	44																															
45 Statistical Inference	45																															
46 Reorganized Math. (SMSG, UICSM, or other)	46																															
47 Analytical Geometry	47																															
48 Other Math. (________)	48																															
49 (________)	49																															
50 (________)	50																															
51-55 FINE ARTS																																
51 Music	51																															
52 Art	52																															
53 Other (________)	53																															
54 (________)	54																															
55 (________)	55																															
56 GENERAL HOMEMAKING	56																															
57 DRIVER TRAINING	57																															
58-59 HEALTH AND PHYS. ED.																																
58 Health	58																															
59 Physical Education	59																															
60-62 UNCLASSIFIED																																
60 (________)	60																															
61 (________)	61																															
62 (________)	62																															

Please turn to next page

IN EACH OF THE FOLLOWING CATEGORIES INDICATE NUMBER OF DIFFERENT COURSES
(Not number of sections scheduled)

SUBJECTS		Year of Sequence, e.g. First Year of Machine Shop												Number of Minutes Each Course Listed Meets Weekly (If half a year, use asterisk *)				
		First I		Second II		Third III		Fourth IV		Fifth V		Sixth VI		Course 1	Course 2	Course 3	Course 4	Course 5
		Full Year	Half Year	Full Year	Half Year	Full Year	Half Year	Full Year	Half Year	Full Year	Half Year	Full Year	Half Year					
63-73 INDUSTRIAL ARTS																		
63 General Shop	63																	
64 Wood Shop	64																	
65 Sheet Metal	65																	
66 Machine	66																	
67 Automotive	67																	
68 Printing	68																	
69 Electrical	69																	
70 Mechanical Drawing	70																	
71 Other I.A. (________)	71																	
72 (________)	72																	
73 (________)	73																	
74-81 VOCATIONAL-TECHNICAL																		
74 Vocational Home Ec.	74																	
75 Trades & Industrial	75																	
76 Agriculture	76																	
77 Distributive Education	77																	
78 Work Experience Program	78																	
79 Other Voc. (________)	79																	
80 (________)	80																	
81 (________)	81																	
82-89 COMMERCIAL SUBJECTS																		
82 Typing	82																	
83 Shorthand	83																	
84 Bookkeeping	84																	
85 Business Training	85																	
86 Bus. Machine Operation	86																	
87 Other Comm. (________)	87																	
88 (________)	88																	
89 (________)	89																	

By Richard S. Heisler, Graduate School of Education, University of Pennsylvania

Please check entries to see that:
- Separate forms are used for each grade
- Duplicate Sections at the same course are not counted as separate courses.

Return yellow copies to:
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Keep green copies for your files.

GLOSSARY

Program Manager - The individual charged with the direct supervision of a program, subprogram, subprogram element, or activity.

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